February 28, 2006

Peter Van Alyea
Redwood Oil Company
50 Professional Center Drive, Suite 100
Rohnert Park, CA 94928

Remediation System Operation Report
Fourth Quarter 2005
Redwood Oil Company Bulk Plant
455 Yolanda
Santa Rosa, CA

Dear Mr. Van Alyea:

ECM Group (ECM) has prepared this report summarizing the operation of the ground water remediation system at the above-referenced site (Figures 1 and 2, Appendix A) for the period of October 3, 2005 through December 23, 2005. The system consists of a Ground Water Extraction (GWE) system. A plan view of the system is shown on Figure 3 (Appendix A). A Soil Vapor Extraction (SVE) system and an Air Sparge (AS) system were formerly operated at the facility. Operation of the SVE system was discontinued in September of 2003. Operation of the AS system was discontinued in April of 2005.

SYSTEM OPERATION

A summary report describing system installation was submitted in November 2001.[1] The GWE system was activated in June, 2001. The AS system was activated in July, 2001. The SVE system was initially activated on July 27, 2001. On August 22, 2001, the SVE system was deactivated in order to clean the furnace catalyst and bring the system to Bay Area Air Quality Management (BAAQMD) standards. Modifications were completed and the system was reactivated on September 18, 2001.

A System Evaluation Report dated August 27, 2003 recommended deactivation of the SVE system.[2] The SVE system was deactivated September 5, 2003. Historical operating data for the SVE system is presented in Tables 1 and 2, Appendix B.

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1 ECM, 2001, Remedial System Installation, Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, CA, November 12, 2001, 5 pages and 4 appendices.

2 2003, ECM, Remedial System Evaluation and Monitoring Reduction Proposal, 455 Yolanda Ave., Santa Rosa, CA August 27, 2003, 10 pages and 3 attachments.

The remediation system infrastructure includes nine wells (GWE/SVE-1 through GWE/SVE-9) which are constructed as combined GWE/SVE wells, seven GWE wells (PMCS-1 through PMCS-6, and GWE-10), three SVE wells (SVE-11 through SVE-13), and 14 air injection (sparge) points. Schematics of GWE wells are shown in Figures 4 and 5 (Appendix A). Schematics of SVE wells are shown in Figures 6 and 7 (Appendix A). Schematics for combined GWE/SVE well-heads are shown in Figure 8 (Appendix A). Schematics of an AS injection point is shown in Figure 9 (Appendix A). Typical conduit trench details are shown in Figure 10 (Appendix A). Layout of the water, air, and electrical systems in the treatment system pad are shown in Figures 11 through 13 (Appendix A).

Analytic laboratory reports for system influent water samples collected during the fourth quarter of 2005 are included in Appendix C. Operation and maintenance field notes are included in Appendix D.

GWE System Operation

The GWE system extracts ground water from a total of 16 wells (Figure 3, Appendix A). Table 3 (Appendix B) provides flow totalizer readings for the GWE system. Between system start-up and December 23, 2005, a total of 4,733,386 gallons of ground water were extracted by the system. Flow rate for the system over the fourth quarter of 2005 varied from 0.0 to 3.2 gallons per minute (GPM).

Table 5 (Appendix B) provides measurements of ground water levels in extraction wells. Water levels in extraction wells are measured semi-annually. As a measure of system performance, water levels in extraction wells may be compared to water levels in site monitoring wells (Table 7, Appendix B). System extraction wells are approximately 30 ft in depth and contain pumps that are 5 ft in length. Pumps are set approximately 0.5 ft from the bottom of each well. A water level of approximately 24 to 30 ft bgs in an extraction well is an indicator of optimum performance. Water levels in extraction wells are provided in Table 5 (Appendix B).

Air Sparge System Operation

The air sparge system consisted of 14 air injection points (Figure 3, Appendix A). Table 6 (Appendix B) presents air flow readings for each sparge point since system start-up, which were recorded quarterly. Air was delivered to the injection points at approximately 20 psi.

The AS system was designed to operate in conjunction with the SVE system. Operating the AS system at its previous flow rate (2 to 10 scfm) without the SVE system in operation to remove volatilized hydrocarbons is not advised. After deactivation of the SVE system, the AS system was converted to a low-flow system, with a flow rate of less than 1 scfm for each injection point. The purpose of the low flow system was to continue to introduce oxygen into the subsurface, encouraging bioremediation.

On April 24, 2005 the air sparge portion of the remediation system was deactivated for an efficiency evaluation. The air sparge system remained off during the fourth quarter of 2005. Details of hours of operation and sparge point data are provided in Table 6 (Appendix A).

SYSTEM PERFORMANCE EVALUATION

GWE System Performance Evaluation

The GWE system operated during the fourth quarter of 2005 with down time for minor maintenance and replacement of the air compressor. The system was off for compressor replacement between September 30 and October 21, 2005. The new compressor was installed in order to increase system efficiency. Minor maintenance also included sealing small leaks in air pressure lines, fixing pump regulators, and changing the compressor controller switches.

System performance may be measured by quantity of hydrocarbons removed. Since hydrocarbons have a very low solubility in water, mass of hydrocarbons removed by a ground water extraction system is typically low relative to the quantity of hydrocarbons sorbed to soil. Another measure of system performance is the system's ability to control the offsite migration of impacted ground water.

During the fourth quarter of 2005, a total of 187,467 gallons of ground water were extracted by the system (Table 3, Appendix A), at a flow rate of between 0.0 and 3.18 GPM. Hydrocarbon removal is calculated using the ground water influent hydrocarbon concentrations in Table 4 (Appendix B) and the figures for gallons discharged in Table 3 (Appendix A). Assuming the influent stream sample collected on October 3, 2005 was typical for the quarter as a whole (i.e., assuming an average concentration of <50 parts per billion (ppb) for gasoline, 75 ppb for diesel, and 84 ppb for MTBE), then mass of contaminant removed by the GWE system during the third quarter was approximately 0.05 kg of gasoline and diesel and 0.06 kg of MTBE. Quarterly hydrocarbon removal rates are shown in Table 8 and Graph 1 (Appendix B).

Water level measurements are collected in pumping wells and monitoring wells on a semi-annual basis. Water level measurements in pumping wells and monitoring wells are used to evaluate GWE system performance in terms of drawdown and plume migration control. Figure 2

(Appendix A) shows inferred ground water elevation contours based on the measurements recorded on February 1, 2006. Water levels for GWE wells were measured last on January 27, 2006 to evaluate system performance. Measurements are provided in Table 5 (Appendix B).

Thank you for the opportunity to provide environmental consulting services to Redwood Oil Company. Please call if you have questions or require additional information.

Sincerely,
ECM Group

David Hazard
Staff Scientist

Chris Bramer
Professional Engineer #C048846

Attachments:
Appendix A - Figures
Appendix B - Tables
Appendix C - Laboratory Analytical Reports and Chain of Custody Record
Appendix D - Field Notes

cc: Joan Fleck, NCRWQCB

APPENDIX A

FIGURES

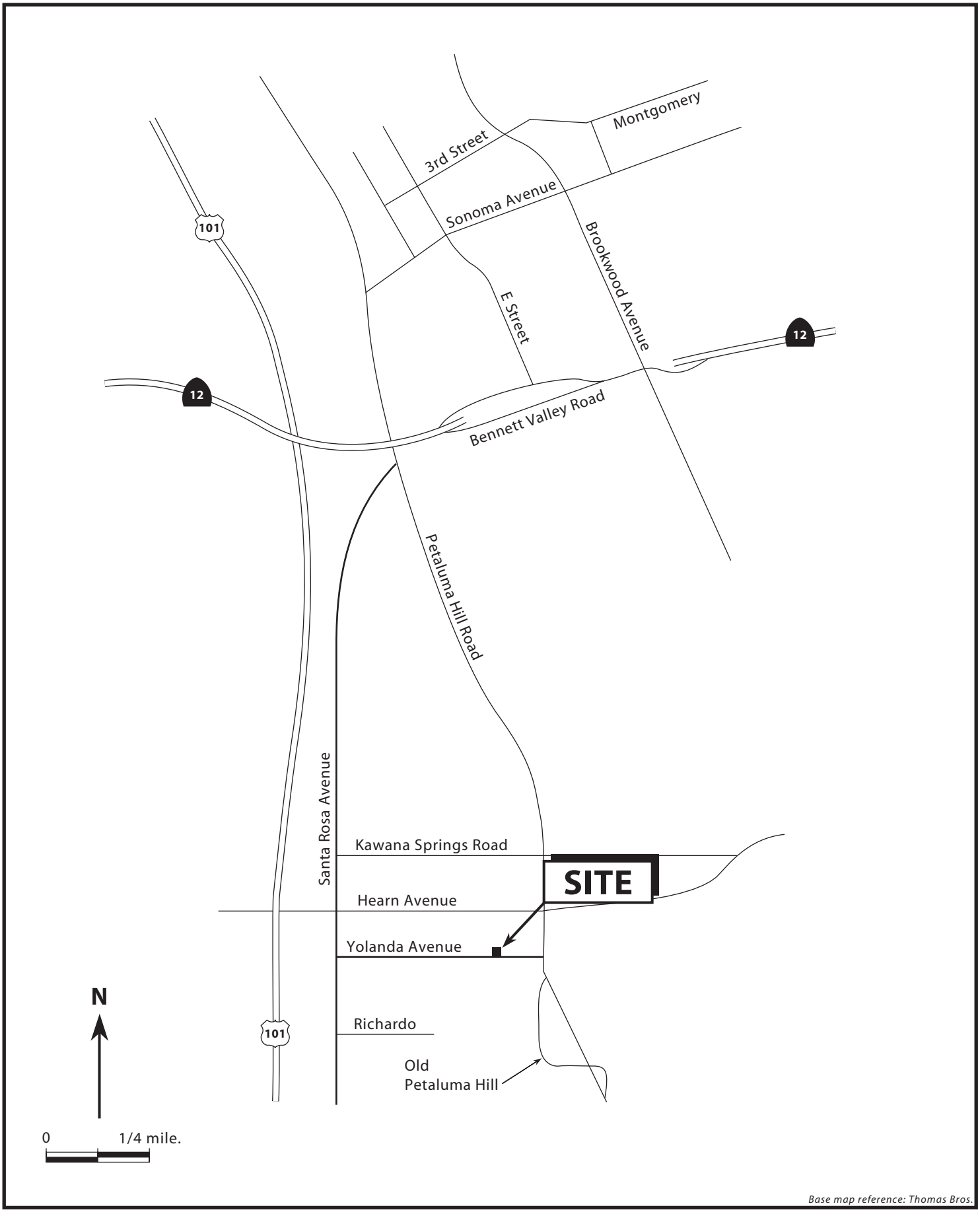


Figure 1. Site Location Map - Redwood Oil Service Station, 455 Yolanda Avenue, Santa Rosa, California

98-507 [Site Loc map] 3/19/02

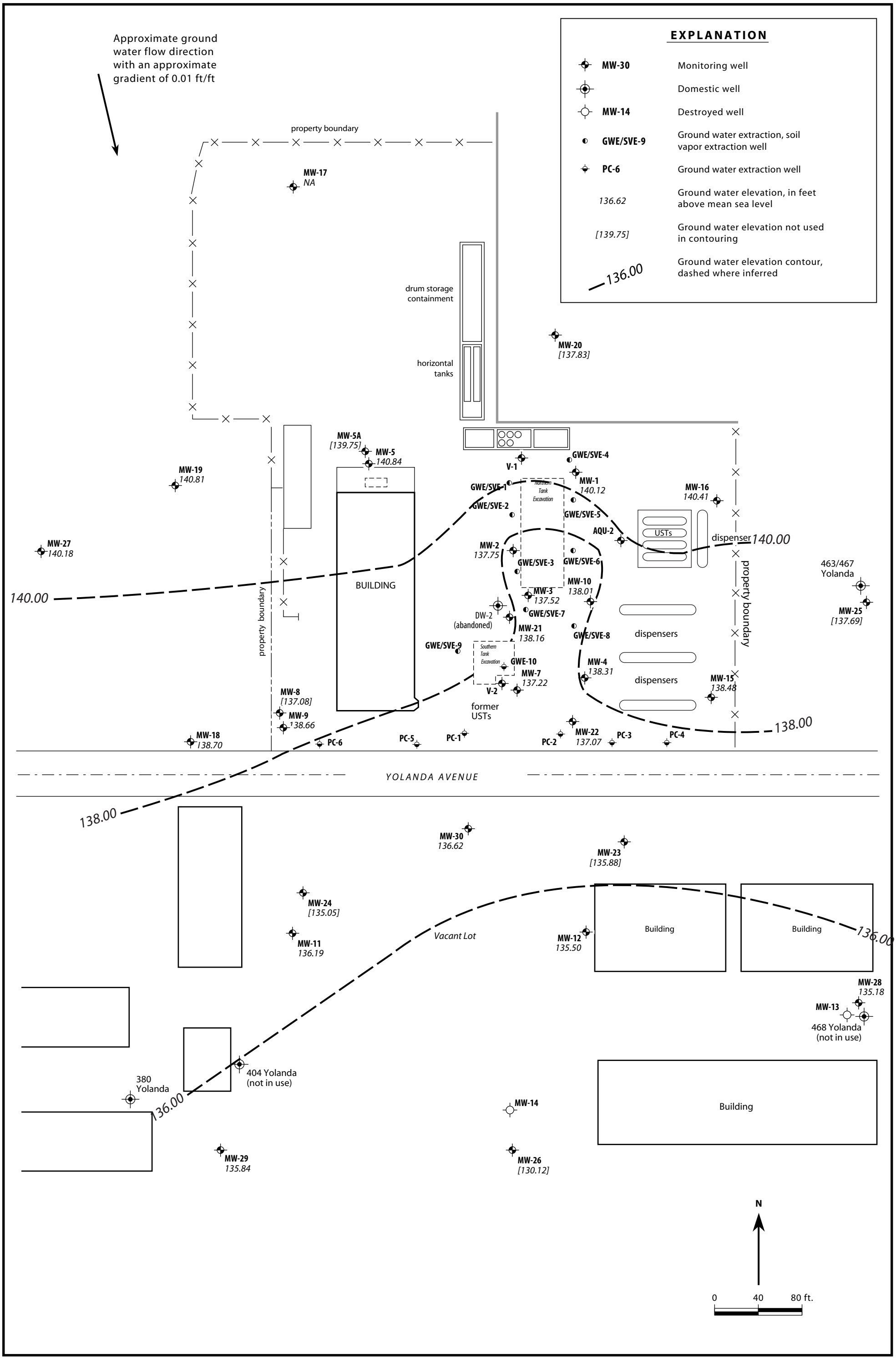


Figure 2. Monitoring Well Locations and Ground Water Elevation Contour Map - February 1, 2006 - Redwood Oil Bulk Plant, 455 Yolanda Avenue, Santa Rosa, California

98-507- 35 [GW 2-06] 3/2/06

EXPLANATION

- MW-21 — Monitoring well
- GWE/SVE-13 — Ground water extraction, soil vapor extraction well
- AS-13 — Air injection well
- Water return line
- Vapor return line

Air supply lines for sparge points and GWE wells not shown.

N

0 30 ft.

Facility Building

Treatment Pad

Loading Dock

Northern Tank Excavation

Southern Tank Excavation

GWE/SVE-1
GWE/SVE-2
GWE/SVE-3
GWE/SVE-4
GWE/SVE-5
GWE/SVE-6
GWE/SVE-7
GWE/SVE-8
GWE/SVE-9
SVE-11
SVE-12 (former V-2)
SVE-13
GWE-10
MW-1
MW-2
MW-3
MW-4
MW-7
MW-9
MW-10
MW-21
MW-22
AS-1
AS-2
AS-3
AS-4
AS-5
AS-6
AS-7
AS-8
AS-9
AS-10
AS-11
AS-12
AS-13
AS-14
PC-1
PC-2
PC-3
PC-4
PC-5
PC-6

Figure 3. Remediation System - Plan View - 455 Yolanda Avenue, Santa Rosa, California

98-507-95 [RemedSys 9_01 11x17 no data] 11/09/01

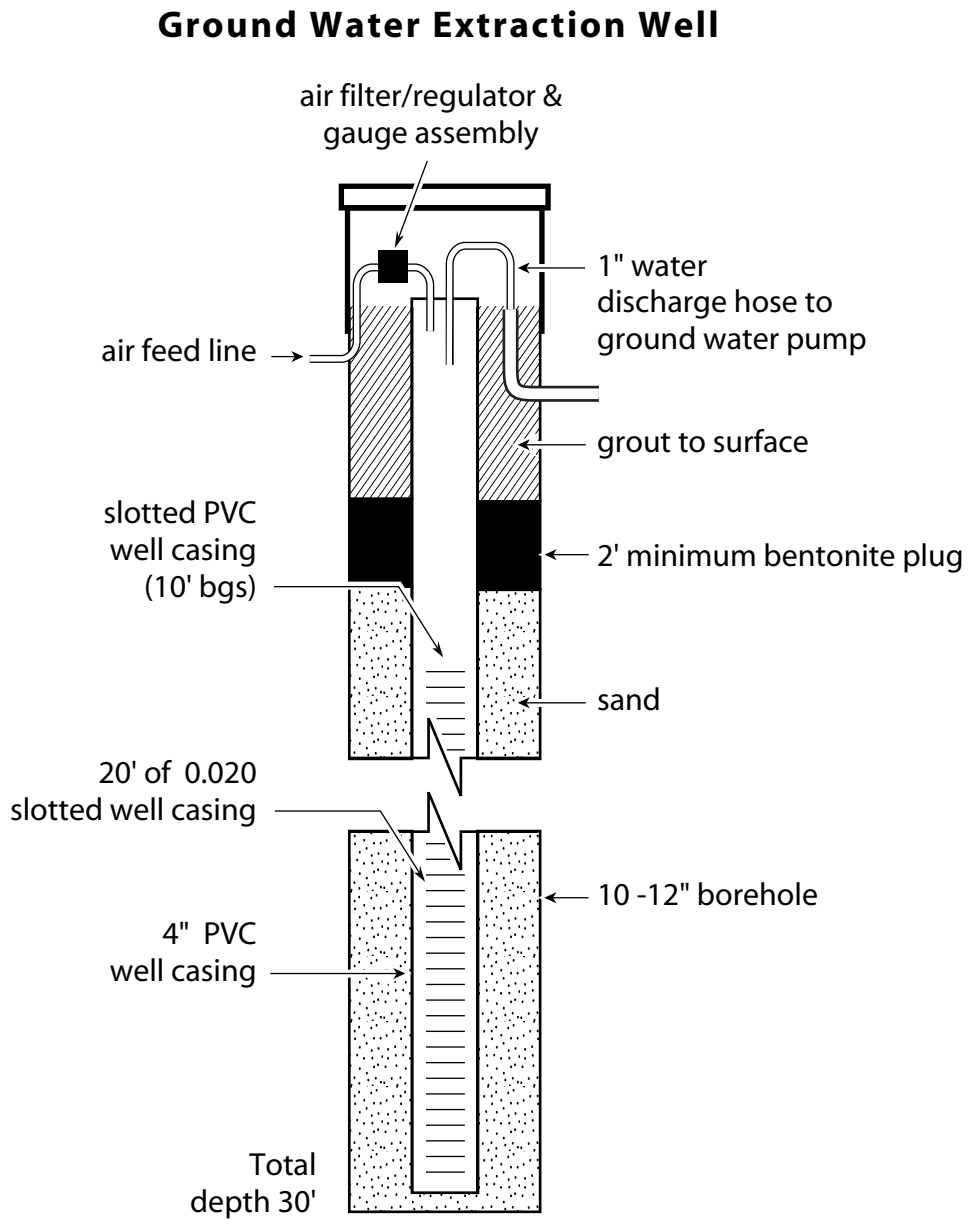


Figure 4. Groundwater Extraction Well Diagram - Redwood Oil Bulk Plant - 455 Yolanda, Santa Rosa, California

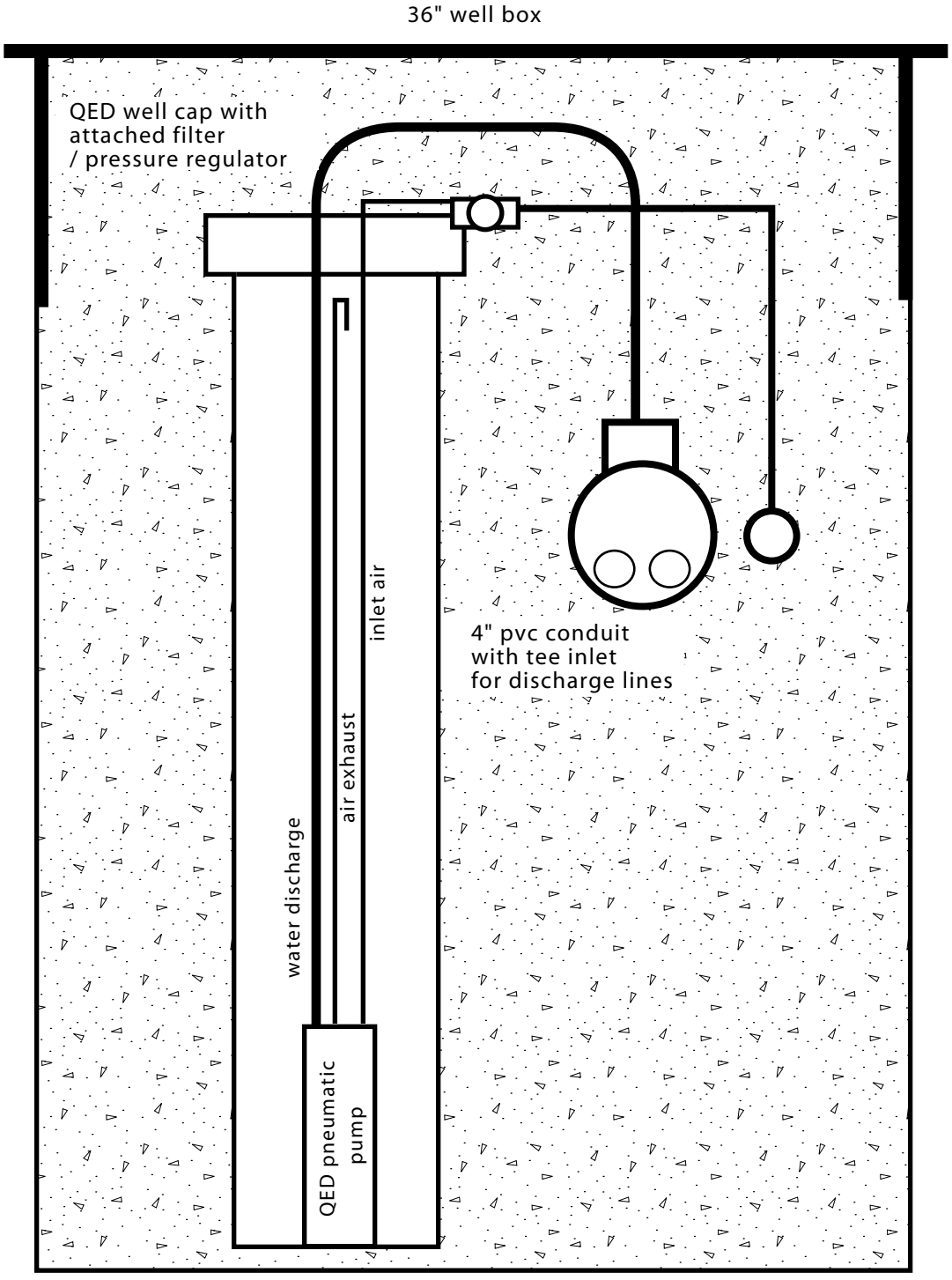


Figure 5. Groundwater Extraction Well Head Detail - Redwood Oil Bulk Plant - 455 Yolanda, Santa Rosa, California

Soil Vapor Extraction Well

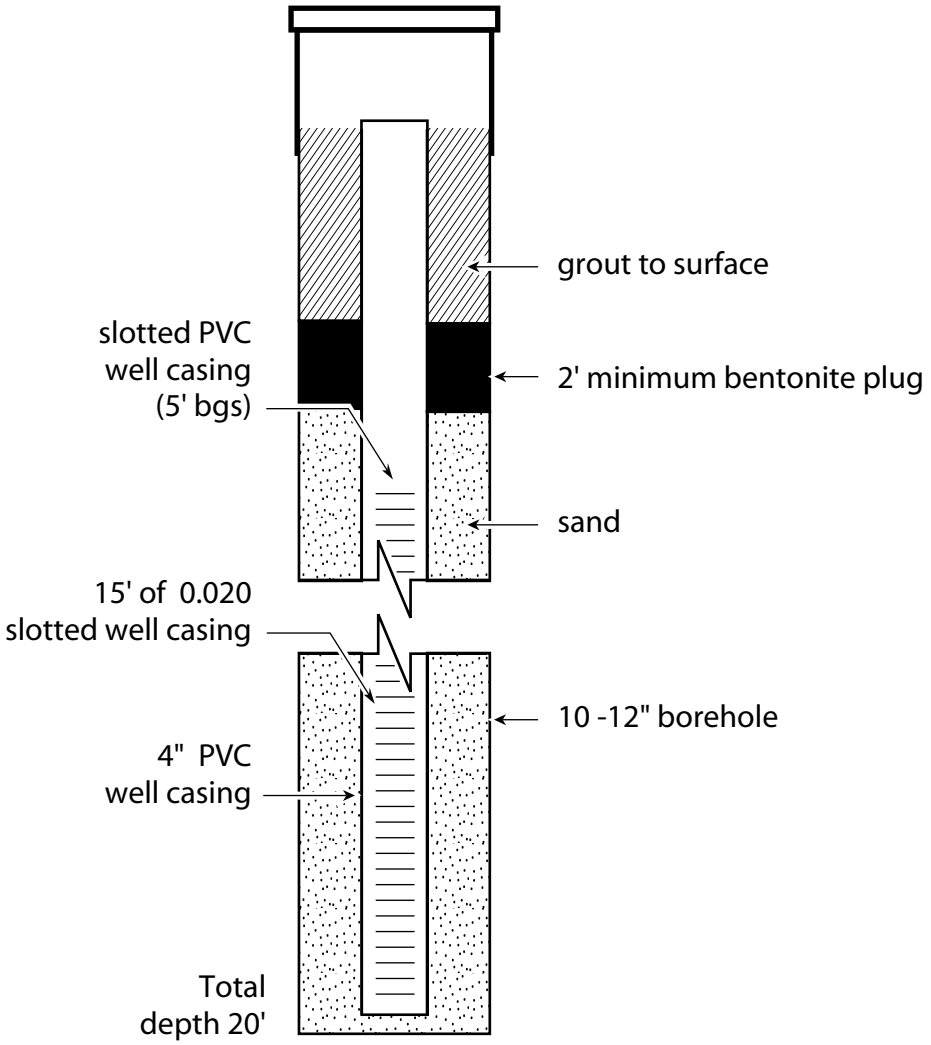


Figure 6. Soil Vapor Extraction Well Diagram - Redwood Oil Bulk Plant - 455 Yolanda, Santa Rosa, California

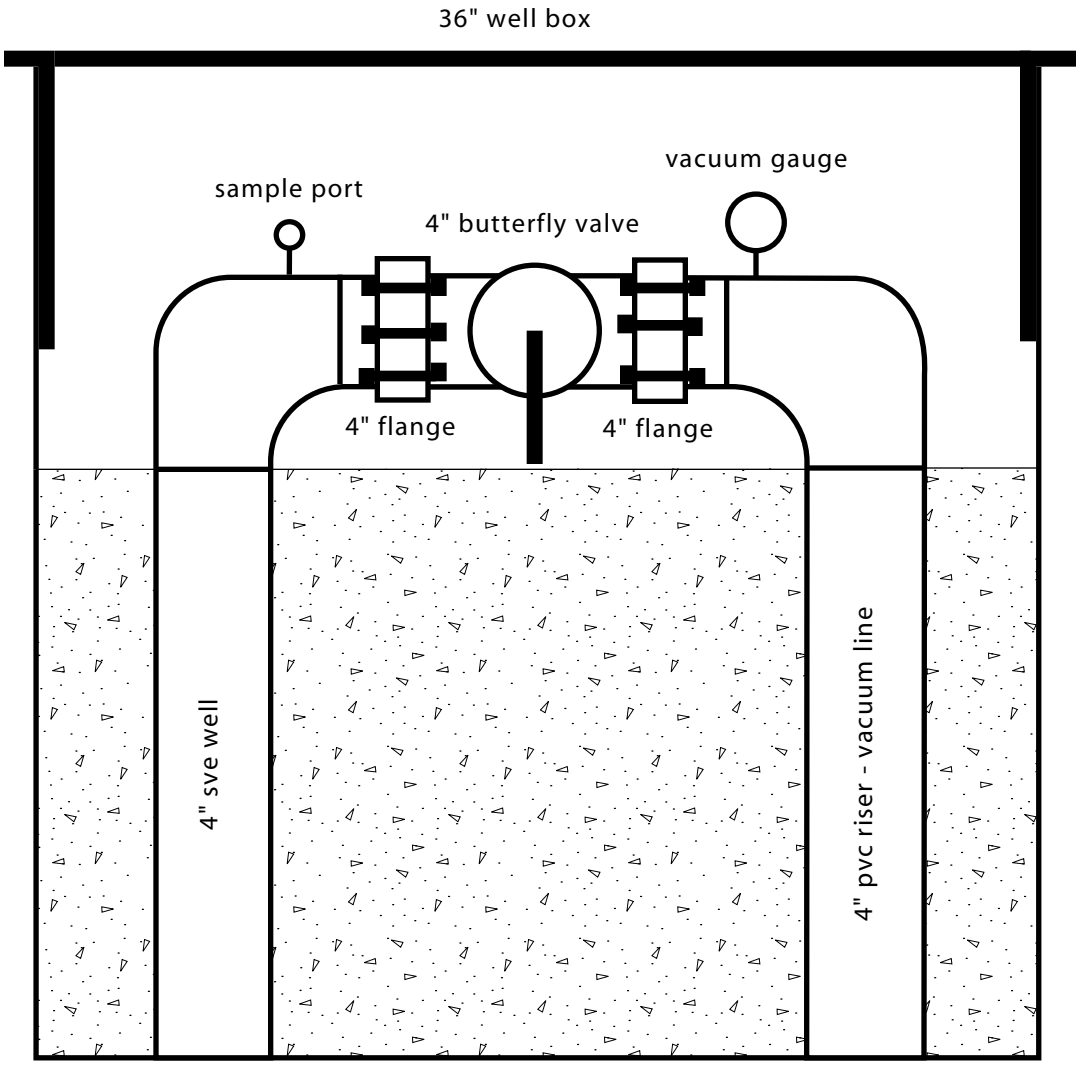


Figure 7. Soil Vapor Extraction Well Head Detail - Redwood Oil Bulk Plant - 455 Yolanda, Santa Rosa, California

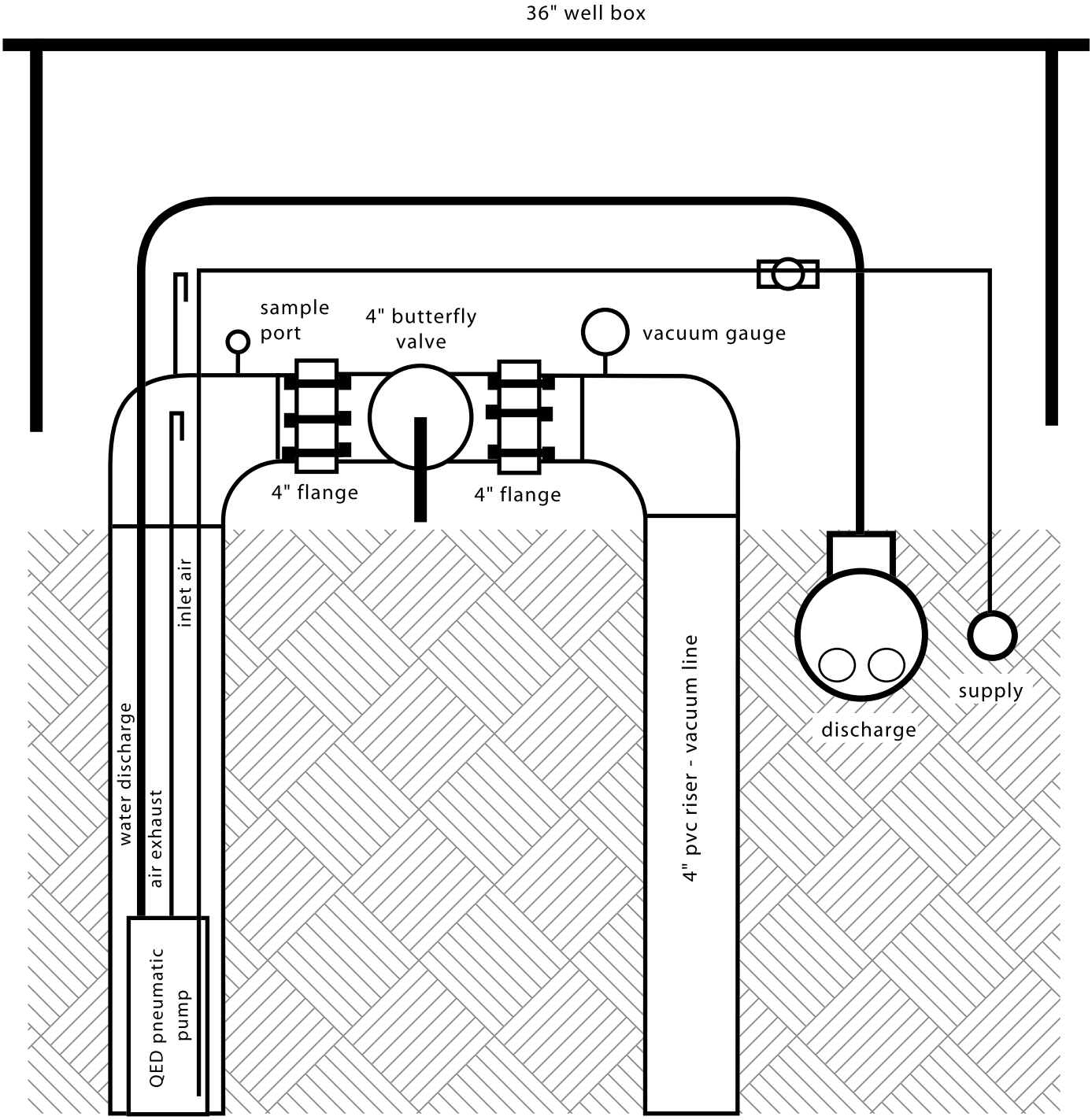


Figure 8. Combined Ground Water and Soil Vapor Extraction Well Head Detail - Redwood Oil Bulk Plant - 455 Yolanda, Santa Rosa, California

98-507-95 [combined GWE_SVE well head detail] 10/30/01

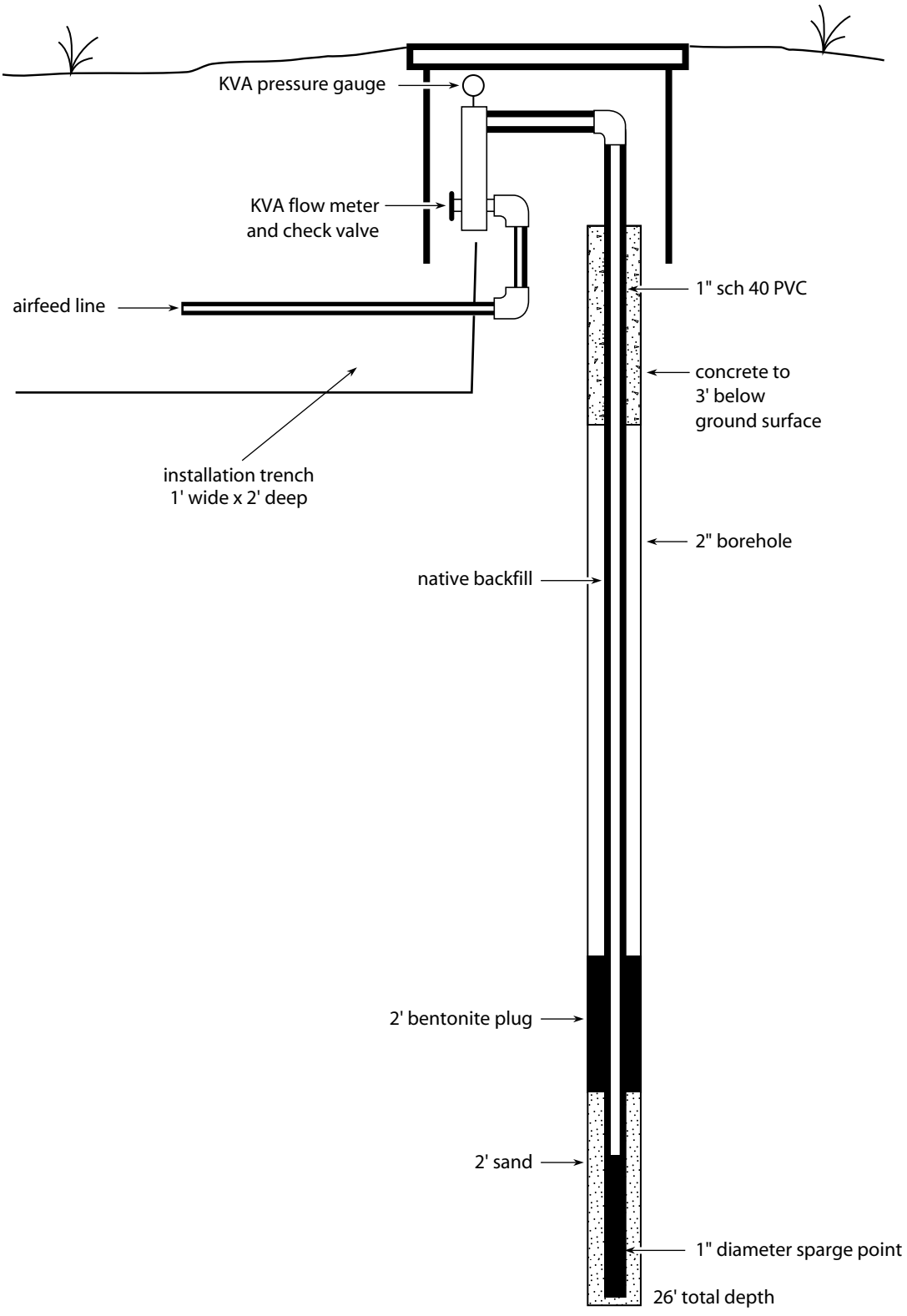
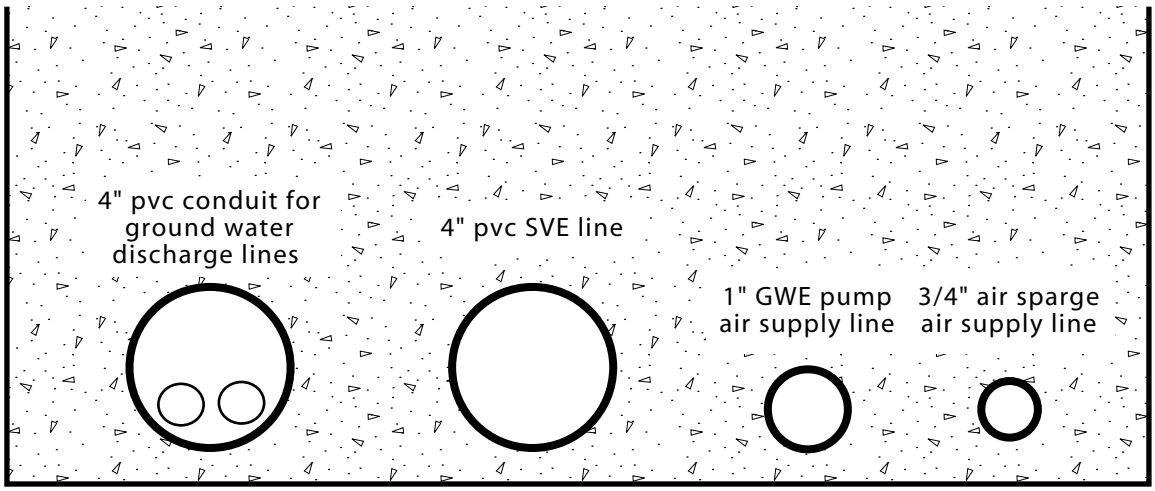
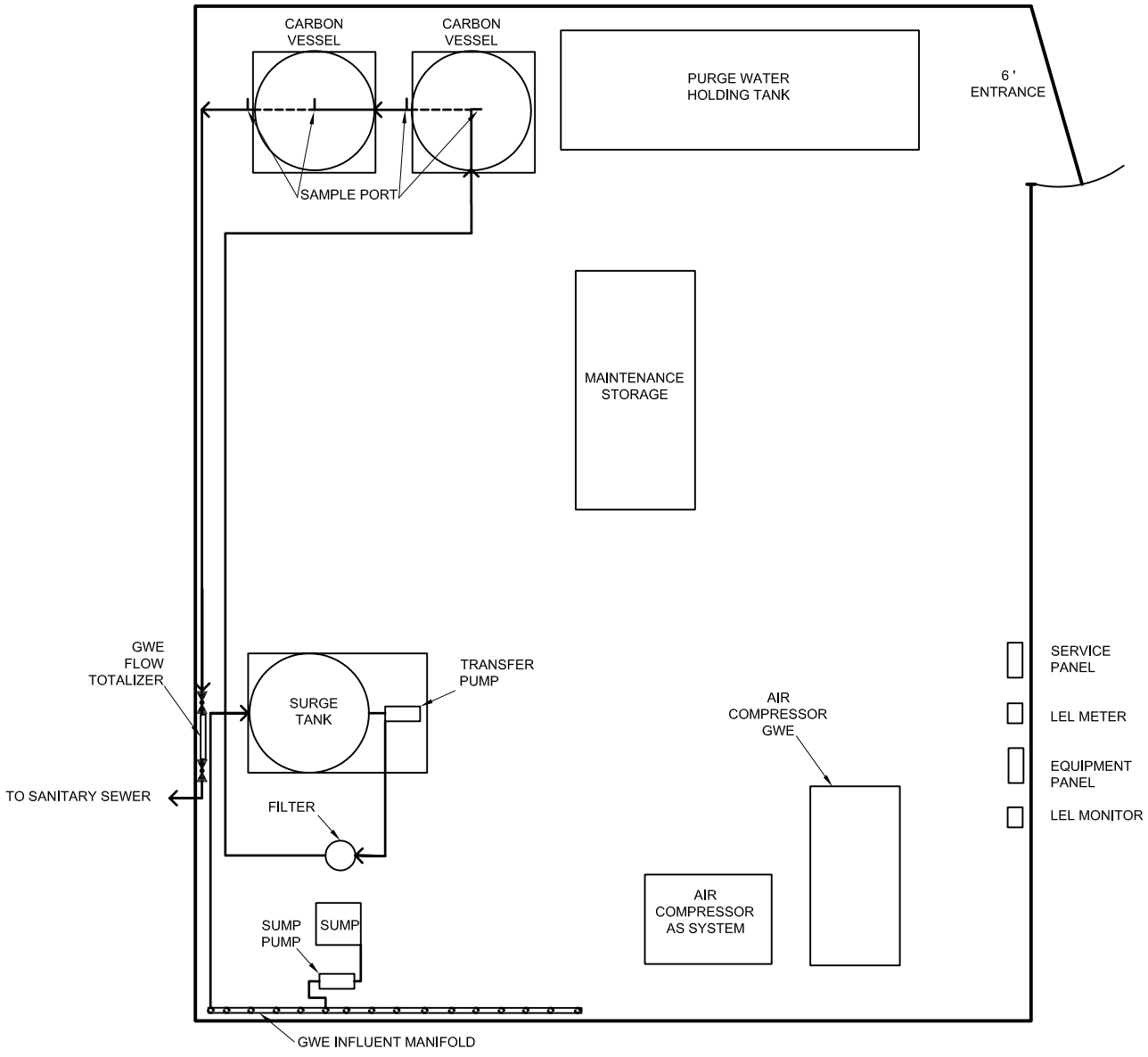


Figure 9. Air Injection Well Diagram - Redwood Oil Bulk Plant - 455 Yolanda, Santa Rosa, California

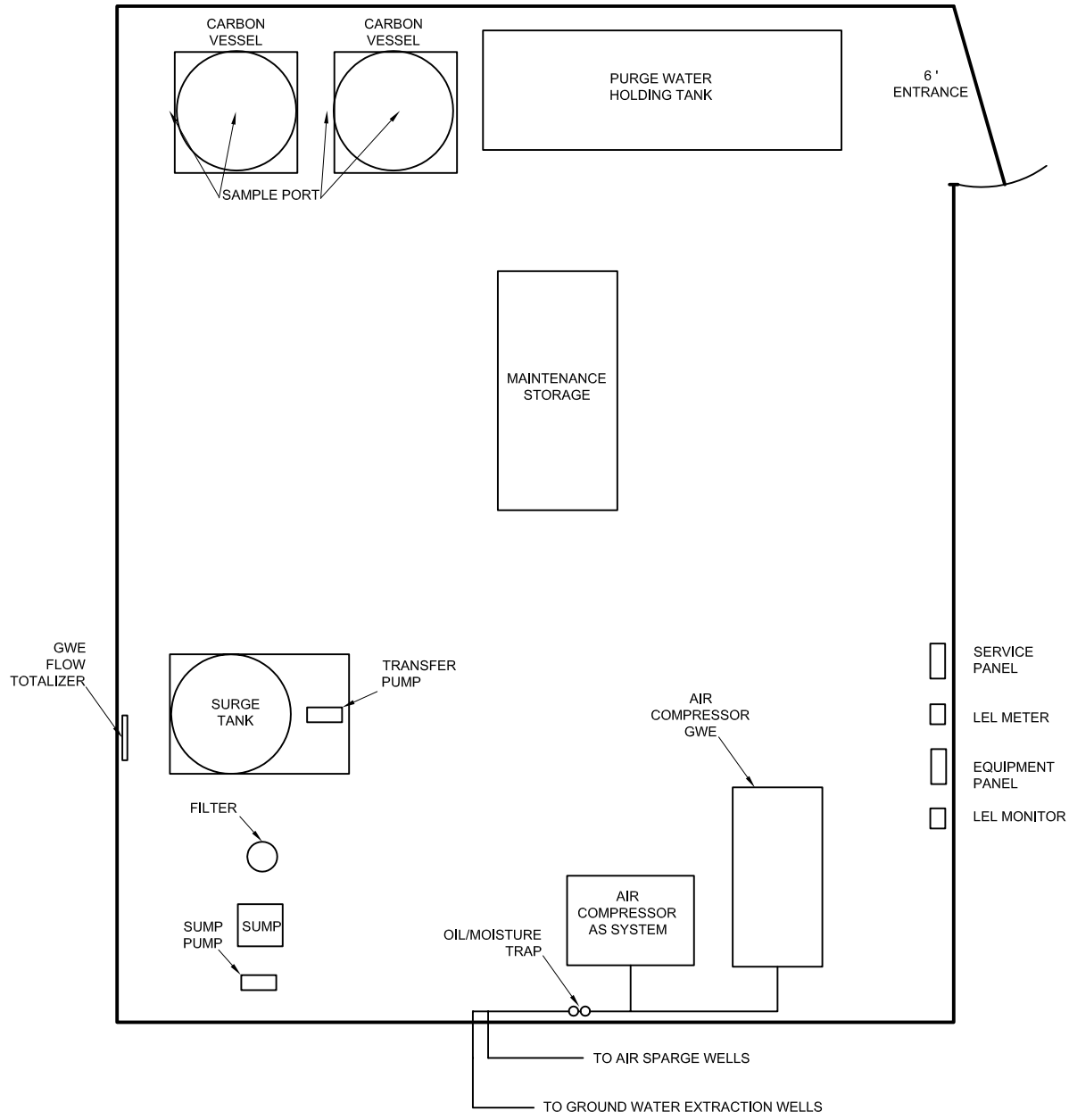


Trench Dimensions
2' wide x 3' deep
(nominal)

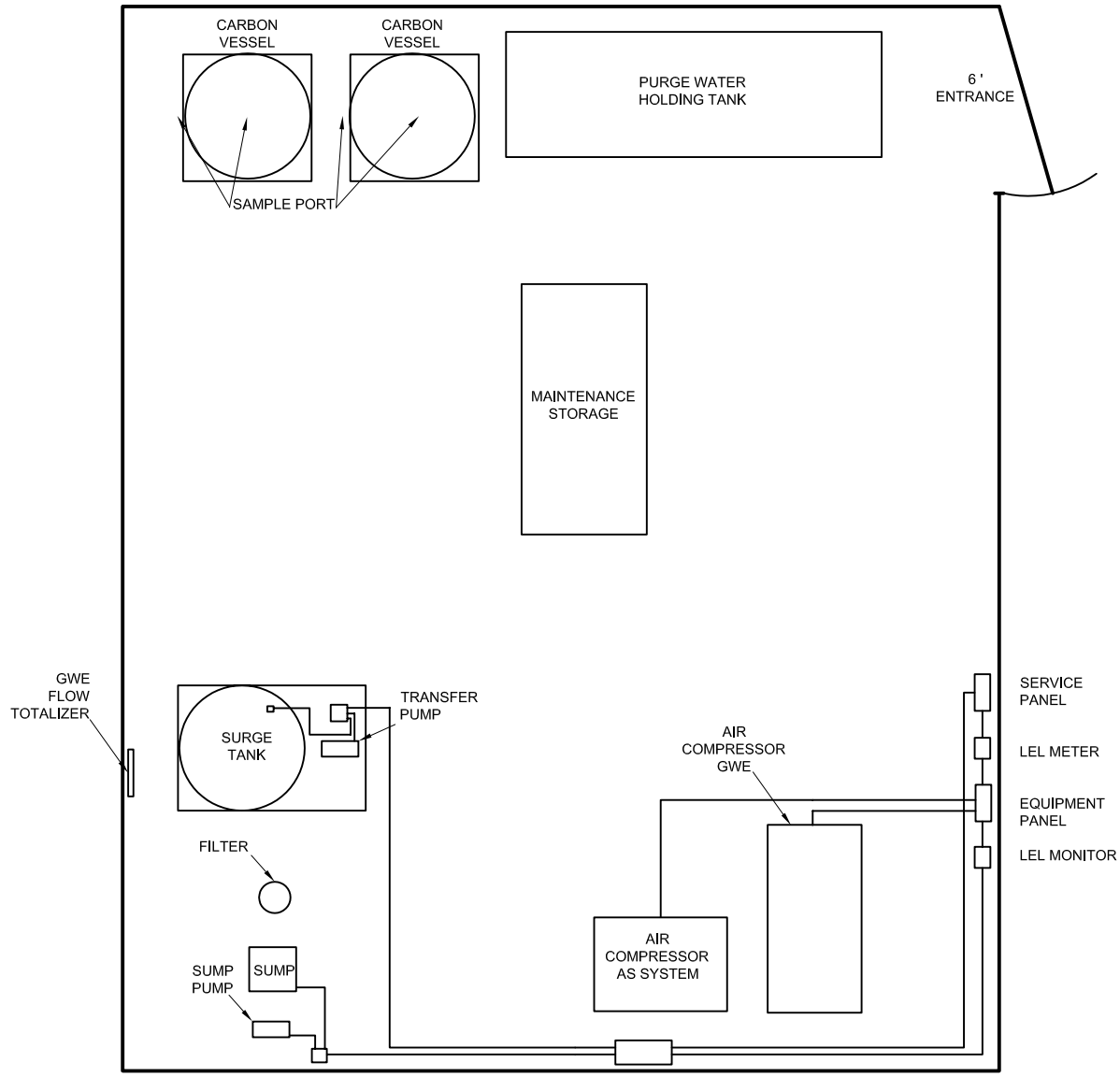
Figure 10. Pipe Trench Detail - Redwood Oil Bulk Plant - 455 Yolanda, Santa Rosa, California



ECM Group	PROJECT REMEDIATION SYSTEM Redwood Oil Bulk Plant, 455 Yolanda Avenue, Santa Rosa California	DRAWING WATER SYSTEM	PROJECT NUMBER	98-507-95	DRAWN BY RG
			ORIGINAL DATE		CHECKED BY CB
			REVISION DATE	2/24/05	FIGURE NUMBER 11



ECM Group	PROJECT REMEDIATION SYSTEM Redwood Oil Bulk Plant, 455 Yolanda Avenue, Santa Rosa California	DRAWING AIR SYSTEM	PROJECT NUMBER	98-507-95	DRAWN BY RG
			ORIGINAL DATE		CHECKED BY CB
			REVISION DATE	2/10/05	FIGURE NUMBER 12



ECM Group	PROJECT REMEDIATION SYSTEM Redwood Oil Bulk Plant, 455 Yolanda Avenue, Santa Rosa California	DRAWING ELECTRICAL SYSTEM	PROJECT NUMBER	98-507-95	DRAWN BY RG
			ORIGINAL DATE		CHECKED BY CB
			REVISION DATE	2/10/05	FIGURE NUMBER 13

APPENDIX B

TABLES AND GRAPHS

Table 1. Vapor Extraction System Flow Calculations - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Influent Concentration (ppm)	Influent Concentration µg/l[2]	Removal Rate Kg/day[3]
7/27/01	327	1,360	11.7
8/1/01	214	890	7.7
8/2/01[1]	200.23	834.2	7.2
8/10/01	256	1,064	9.2
8/20/01	224	931	8.0
9/12/01[1]	52.51	222.1	1.9
9/25/01	102	424	3.6
10/5/01	118	490	4.2
10/16/01	242	1,006	8.7
11/2/01	120	499	4.3
11/9/01	97	403	3.5
12/12/01[1]	162.6	681	5.8
3/12/02 [4]	2.6	10.8	0.1
3/29/02 [5]	321	1,334	11.4
4/5/02	5.2	21.6	0.2
4/26/02	0	0	0
5/16/02	4.3	17.9	0.2
5/24/02	6.5	27.0	0.2

Table 1. Vapor Extraction System Flow Calculations - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Influent Concentration (ppm)	Influent Concentration µg/l[2]	Removal Rate Kg/day[3]
5/29/02	3.6	14.9	0.1
6/7/02	4.3	17.9	0.2
6/13/02	3.2	13.3	0.1
6/28/02	2.3	9.6	0.1
7/2/02	3.8	15.8	0.1
7/19/02	148	615.2	5.2
7/25/02	4.7	19.5	0.2
8/1/02	205	852.2	7.2
8/8/02	2.3	9.6	0.1
8/14/02 [1]	121	504.4	4.3
8/16/02	4.7	19.5	0.2
9/9/02 [6]	29.9	124.3	1.1
9/10/02	4.3	17.9	0.2
9/16/02 [7]	58.6 / 9.9	243.6 / 41.2	2.1 / 0.35
9/27/02 [7]	10 / 2.9	41.6 / 12.0	0.36 / 0.1
10/2/02	1.8	7.5	0.1
10/11/02	2.3	9.6	0.1
10/18/02	2.2	9.1	0.1

Table 1. Vapor Extraction System Flow Calculations - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Influent Concentration (ppm)	Influent Concentration µg/l[2]	Removal Rate Kg/day[3]
10/20/02	2.0	8.3	0.1
11/11/02	2.4	10.0	0.1
11/22/02 [1]	4.4	18.3	0.2
11/27/02 [1]	1.8	7.5	0.1
12/4/02 [1]	1.2	5.0	<0.1
12/13/02	1.4	5.8	<0.1
12/20/02	0.6	2.5	<0.1
12/27/02	1.2	5.0	<0.1
1/3/03	1.9	7.9	0.1
1/10/03	1.6	6.7	0.1
1/16/03	0.6	2.5	<0.1
1/29/03	0.6	2.5	<0.1
2/7/03	0.9	3.7	<0.1
2/11/03 [8]	2.5	10.4	0.1
2/14/03 [8]	12.2	51	0.4
2/28/03 [8]	1.6	6.7	<0.1
3/4/03 [8]	10	42	0.4
3/11/03 [8]	1.2	5	<0.1
3/28/03	2.5	10.4	0.1

Table 1. Vapor Extraction System Flow Calculations - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Influent Concentration (ppm)	Influent Concentration µg/l[2]	Removal Rate Kg/day[3]
6/6/03	0	0	<0.1
6/18/03	1	4	<0.1
6/27/03	0	0	<0.1
7/3/03	0	0	<0.1
7/11/03	0	0	<0.1
7/17/03	0	0	<0.1
7/25/03	0	0	<0.1
7/31/03	0	0	<0.1
8/8/03	0	0	<0.1
8/14/03	0	0	<0.1
8/19/03	0	0	<0.1

Explanation:
ppmv = parts per million (volume)
µg/l = micrograms/liter
kg/day = kilograms/day

Table 1. Vapor Extraction System Flow Calculations - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

NOTES:

[1] ppm and ug/l reported from samples submitted to Air Toxics, Ltd, Folsom, CA.

[2] µg/l values calculated using the following equation: µg/l = ppmv x molecular weight/24.055. Assumed molecular weight of gasoline = 100. Equation provided by Air Toxics Analytical Laboratory

[3] kg/day calculations are based on system flow of 210 SCFM (standard cubic feet per minute).

[4] Thermal oxidation unit inoperative from 12/31/01 through 2/21/02 due to mechanical failure.

[5] Thermal oxidation unit inoperative from 3/15/02 through 3/19/02 due to mechanical failure.

[6] SVE system inoperative between 8/16/02 and 9/9/02 in order to determine whether temporary shutdown would improve SVE system performance.

[7] PPMV reading taken with Flame Ionization Detector (first measurement shown) and also with Photo Ionization Detector (second measurement taken).

[8] System modified; subsequent to 2/11/03, only SVE wells 3, 5, and 7 operative.

Table 2. Flow Measurements and Vapor Concentration in Vapor Extraction Wells - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Well I.D. #	Date	Flow Velocity ft/minute	Flow Rate (SCFM)[1]	Vapor Concentration (ppmv)	Vapor Concentration µg/l [2]	TPH(G) Removal Rate grams/day
GWE/SVE-1	10/16/01	2,000	43.6	68	283	503
	11/2/01	2,250	49.1	15	62	123
	12/12/01	3,200	69.8	3	12	34
	8/1/02	2,200	48	5	21	41
	9/27/02	3,400	74.2	4.9	20	60
	10/11/02	3,600	78.5	4.3	18	58
	2/11/03	4,500	98.2	3.8	16	64
GWE/SVE-2	10/16/01	200	4.4	615	2,557	459
	11/2/01	250	5.4	223	927	204
	12/12/01	75	1.6	214	890	58
	8/1/02	150	3.3	320	1,330	179
	9/27/02	300	6.5	16.9	70	18.5
	10/11/02	350	7.6	12.2	51	16
	2/11/03	150	3.3	51.6	216	29
	2/14/03	250	5.5	50	209	47
GWE/SVE-3	10/16/01	1,200	26.2	391	1,625	1,736
	11/2/01	1,250	27	92	382	420
	12/12/01	650	14	119	495	282

Table 2. Flow Measurements and Vapor Concentration in Vapor Extraction Wells - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Well I.D. #	Date	Flow Velocity ft/minute	Flow Rate (SCFM)[1]	Vapor Concentration (ppmv)	Vapor Concentration µg/l [2]	TPH(G) Removal Rate grams/day
GWE/SVE-3	8/1/02	1,500	32.7	278	1,156	1,540
	9/27/02	1,700	37.1	5.6	23	35
	10/11/02	2,000	43.6	4.3	18	32
	2/11/03	400	8.7	55.3	231	82
	2/14/03	2,000	43.6	17.2	72	128
GWE/SVE-4	10/16/01	90	2.0	16	67	5.5
	11/2/01	100	2.2	17	71	6
	12/12/01	50	1.1	2	8	0.4
	8/1/02	0	0	54	224	0
	9/27/02	0	0	0	0	0
	10/11/02	0	0	0	0	0
	2/11/03	3,000	65.4	7.6	32	85
GWE/SVE-5	10/16/01	550	12.0	12	50	24
	11/2/01	175	3.8	3	12	2
	12/12/01	150	3.2	67	278	36
	8/1/02	2,000	43.6	0	0	0
	9/27/02	1,400	30.5	0	0	0
	10/11/02	1,500	32.7	0	0	0

Table 2. Flow Measurements and Vapor Concentration in Vapor Extraction Wells - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Well I.D. #	Date	Flow Velocity ft/minute	Flow Rate (SCFM)[1]	Vapor Concentration (ppmv)	Vapor Concentration µg/l [2]	TPH(G) Removal Rate grams/day
GWE/SVE-6	2/11/03	2,000	43.6	5.2	22	39
	10/16/01	3,300	72.0	165	686	2,013
	11/2/01	2,750	59.5	63	262	635
	12/12/01	2,600	56	169	702	1,602
	8/1/02	310	6.8	0	0	0
	9/27/02	2,800	61.1	0	0	0
	10/11/02	3,200	69.8	0	0	0
	2/11/03	3,000	65.4	3.5	15	40
GWE/SVE-7	10/16/01	1,550	33.8	254	1,056	1,455
	11/2/01	300	6.5	63	262	69
	12/12/01	200	4.3	122	507	89
	8/1/02	3,100	67.6	36.8	153	421
	9/27/02	3,400	74.2	23	96	290
	10/11/02	3,400	74.2	2.3	10	30
	2/11/03	1,500	32.7	6.9	29	39
	2/14/03	6,000	130.8	10.3	43	229
GWE/SVE-8	10/16/01	3,500	76.4	288	1,198	3,731
	11/2/01	550	11.9	153	636	308

Table 2. Flow Measurements and Vapor Concentration in Vapor Extraction Wells - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Well I.D. #	Date	Flow Velocity ft/minute	Flow Rate (SCFM)[1]	Vapor Concentration (ppmv)	Vapor Concentration µg/l [2]	TPH(G) Removal Rate grams/day
GWE/SVE-9	12/12/01	2,500	54	122	507	1,116
	8/1/02	4,500	98.2	0	0	0
	9/27/02	4,800	104.7	0	0	0
	10/11/02	4,200	91.6	0.3	1	4
	2/11/03	3,500	76.4	3.2	13	40
GWE-10	10/16/01	290	6.3	370	1,538	395
	11/2/01	100	2.2	37	154	14
	12/12/01	300	6.5	12	50	13
	8/1/02	5,500	120.0	89.4	372	1,819
	9/27/02	---	---	---	---	---
	10/11/02	450	9.8	1.6	7	3
	2/11/03	500	10.9	0.8	3	1

Table 2. Flow Measurements and Vapor Concentration in Vapor Extraction Wells - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Well I.D. #	Date	Flow Velocity ft/minute	Flow Rate (SCFM)[1]	Vapor Concentration (ppmv)	Vapor Concentration µg/l [2]	TPH(G) Removal Rate grams/day
SVE-11	10/16/01	2,250	49.0	118	490	979
	11/2/01	425	9.2	36	150	56
	12/12/01	16	0.3	8	33	0.4
	8/1/02	2,600	56.7	0	0	0
	9/27/02	2,800	61.1	0	0	0
	10/11/02	3,000	65.4	0	0	0
	2/11/03	6,000	130.9	1.1	5	27
SVE-12	10/16/01	1,750	38.2	93	387	600
	11/2/01	350	7.6	18	75	23
	12/12/01	350	7.6	10	42	13
	8/1/02	2,900	63.3	5.2	22	57
	9/27/02	2,700	59.0	0	0	0
	10/11/02	3,500	76.3	1.6	7	22
	2/11/03	2,500	54.5	0.8	3	7

Table 2. Flow Measurements and Vapor Concentration in Vapor Extraction Wells - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Well I.D. #	Date	Flow Velocity ft/minute	Flow Rate (SCFM)[1]	Vapor Concentration (ppmv)	Vapor Concentration µg/l [2]	TPH(G) Removal Rate grams/day
SVE-13	10/16/01	75	1.6	499	2,074	135
	11/2/01	100	2.2	119	495	44
	12/12/01	175	3.8	32	133	21
	8/1/02	65	1.4	5	21	1.2
	9/27/02[3]	---	---	---	---	---
	10/11/02[3]	---	---	---	---	---
	2/11/03	75	1.6	1.1	5	<1

Explanation:

SCFM = Standard Cubic Feet per Minute
ppmv = parts per million (volume)
µg/l = micrograms per liter

NOTES:

[1] Flow measured in 2" PVC vapor conduit.
[2] µg/l values calculated using the floowing equation: µg/l = ppmv x molecular weight/24.055. Assumed molecular weight of gasoline = 100.
[3] Well-box obstructed by vehicle on day of measurement

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
5/16/01	333,054	333,054	
5/17/01	334,485	334,485	1.0
5/18/01	337,192	337,192	1.9
5/21/01	341,448	341,448	1.0
5/23/01	345,424	345,424	1.4
6/18/01	379,840	379,840	0.9
7/3/01	400,300	400,300	0.9
7/27/01	457,596	457,596	1.7
8/1/01	467,182	467,182	1.3
8/10/01	481,662	481,662	1.1
8/17/01	591,601	495,282 [2]	_____ [1]
8/20/01	592,000	492,282	_____ [3]
8/21/01	592,585	492,867	0.5
8/28/01	602,096	502,378	0.9
9/18/01	627,180	527,462	0.8
9/27/01	638,418	538,700	0.9
10/5/01	648,212	548,494	0.9
10/11/01	655,388	555,670	1.1
10/22/01	667,676	567,958	0.8
11/2/01	678,091	578,373	0.6
11/5/01	681,100 / 0 [4]	581,382	0.7
11/9/01	6,898	588,280	1.2
11/14/01	14,379	595,761	1.0
11/20/01	23,124	604,506	1.0
12/4/01	54,225	635,607	1.6
12/10/01	72,000	653,382	2.1

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
12/17/01	93,341	674,723	2.1
12/26/01	127,051	708,433	2.6
12/31/01	149,385	730,767	3.1
1/2/02	163,000	744,382	4.7
1/11/02	166,771	748,153	---[5]
1/15/02	190,661	772,043	4.3
1/21/02	218,788	800,170	3.1
1/29/02	254,008	835,390	3.1
2/7/02	291,624	873,006	2.9
2/14/02	322,948	904,330	3.1
2/21/02	350,361	931,743	2.7
2/27/02	381,973	963,355	3.6
3/4/02	404,348	982,730	2.7
3/11/02	436,581	1,014,963	3.2
3/19/02	473,249	1,051,631	3.2
3/29/02	522,327	1,100,709	3.4
4/5/02	554,720	1,133,102	3.2
4/19/02	607,648	1,186,030	2.6
4/26/02	705,092	1,283,474	9.7
5/2/02	729,422	1,307,804	2.8
5/6/02	764,815	1,343,197	6.1
5/8/02	771,814	1,350,196	2.4
5/16/02	799,857	1,378,239	2.4
5/21/02	817,770	1,396,152	2.5
5/29/02	848,015	1,426,397	2.6
6/7/02	881,299	1,459,681	2.6

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
6/13/02	881,880	1,460,262	---[6]
6/21/02	912,812	1,491,194	2.7
7/2/02	951,716	1,530,098	2.3
7/11/02	969,631	1,540,013	1.4
7/19/02	995,237	1,565,619	2.2
7/25/02	1,010,942	1,581,324	1.8
8/1/02	1,028,370	1,616,180	1.7
8/8/02	1,044,852	1,632,662	1.6
8/16/02	1,055,510	1,643,314	0.9
8/21/02	1,066,819	1,654,623	1.6
8/29/02	1,082,857	1,670,661	1.4
9/5/02	1,096,024	1,683,828	1.3
9/13/02	1,112,062	1,699,866	1.4
10/2/02	1,145,714	1,733,518	1.2
10/11/02	1,172,292	1,760,096	2.1
10/18/02	1,177,193	1,764,997	---[7]
10/30/02	10,352	1,775,193	---
11/1/02	13,802	1,778,799	2.4
11/5/02	19,338	1,784,335	1.0
11/11/02	25,831	1,790,828	0.8
11/22/02	54,157	1,819,154	1.8
12/4/02	72,416	1,837,413	1.1
12/13/02	89,375	1,854,372	1.3
12/20/02	134,082	1,899,079	4.4
12/30/02	190,593	1,955,590	3.9
1/3/03	215,750	1,980,747	4.4

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
1/10/03	248,269	2,013,266	3.2
1/16/03	279,443	2,044,440	3.6
1/29/03	345,364	2,110,361	3.5
2/7/03	390,854	2,155,851	3.5
2/11/03	408,237	2,173,234	3.0
2/13/03	415,355	2,180,352	2.5
2/18/03	438,355	203,352	3.2
2/28/03	482,319	2,247,316	3.1
3/11/03	529,021	2,294,018	2.9
3/18/03	559,049	2,324,046	3.0
3/28/03	603,783	2,368,780	3.1
4/10/03	664,796	2,429,793	3.2
4/18/03	702,565	2,467,562	3.3
4/25/03	737,250	2,502,247	3.4
5/2/03	774,884	2,539,881	3.7
5/14/03	844,660	2,609,657	4.0
5/22/03	890,318	2,655,315	4.0
5/29/03	910,691	2,675,688	2.0
6/6/03	953,142	2,718,139	3.7
6/17/03	1,012,384	2,777,381	3.7
6/20/03	1,028,586	2,793,583	3.8
6/27/03	1,075,339	2,840,336	4.6
7/3/03	1,089,455	2,854,452	1.6
7/11/03	1,098,458	2,863,455	0.8
7/17/03	1,157,284	2,922,281	6.8
7/25/03	1,196,119	2,961,116	3.4

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
7/30/03	1,217,345	2,982,342	2.9
8/8/03	1,277,728	3,042,779	4.7
8/14/03	1,306,709	3,071,706	3.3
8/19/03	1,322,407	3,087,404	2.2
8/29/03	1,332,846	3,097,843	0.7
9/5/03	1,347,945	3,112,942	1.5
9/12/03	1,351,475	3,116,742	0.4
9/26/03	1,370,697	3,135,694	0.9
10/3/03	1,379,064	3,144,061	0.8
10/10/03	1,386,120	3,151,117	0.7
10/17/03	1,391,959	3,156,956	0.6
10/24/03	1,397,544	3,162,541	0.6
10/31/03	1,403,823	3,168,820	0.6
11/7/03	1,410,468	3,175,465	0.7
11/18/03	1,412,090	3,177,087	0.1
12/5/03	1,425,363	3,190,360	0.5
12/22/03	1,436,251	3,201,248	0.4
12/30/03	1,439,644	3,204,641	0.3
1/7/04	1,440,581	3,205,578	0.1
1/14/04	1,445,512	3,210,509	0.5
1/29/04	1,489,433	3,254,430	2.0
2/13/04	1,516,076	3,281,073	1.2
2/27/04	1,544,114	3,309,111	1.4
3/3/04	1,554,424	3,319,421	1.4
3/10/04	1,568,474	3,333,471	1.4
3/16/04	1,578,867	3,343,864	1.2

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
3/25/04	1,595,581	3,360,578	1.3
3/31/04	1,597,170	3,362,167	0.2
4/9/04	1,611,753	3,376,750	1.1
4/16/04	1,621,268	3,386,265	0.9
4/23/04	1,629,798	3,394,795	0.8
5/3/04	1,636,948	3,401,945	0.4
5/4/04	1,636,997	3,401,994	0 [8]
5/10/04	1,643,162	3,408,159	0.7
5/21/04	1,653,412	3,418,409	0.6
5/28/04	1,659,764	3,424,761	0.6
6/4/04	1,665,917	3,430,914	0.6
6/14/04	1,668,218	3,433,215	0.2
6/22/04	1,670,654	3,435,651	0.2
7/2/04	1,677,769	3,442,766	0.5
7/16/04	1,688,358	3,453,355	0.5
7/19/04	1,693,629	3,458,626	1.3
7/23/04	1,703,653	3,468,650	1.7
7/30/04	1,714,343	3,479,340	1.1
8/6/04	1,721,680	3,486,677	0.7
8/13/04	1,721,680	3,493,733	0.7[9]
8/20/04	1,721,804	3,500,789	0.7[9]
8/26/04	1,721,804	3,506,837	0.7[9]
8/27/04	1,722,930	3,507,963	0.8
9/1/04	1,727,430	3,509,463	0.6
9/7/04	1,732,954	3,517,987	0.6
9/10/04	1,735,768	3,520,801	0.6

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
9/17/04	1,741,255	3,526,288	0.6
9/24/04	1,744,090	3,529,123	0.3
10/1/04	1,744,238	3,529,271	0
10/4/04	1,744,264	3,529,297	0[10]
10/5/04	1,746,297	3,531,330	1.4
10/8/04	1,749,826	3,534,859	0.8
10/11/04	1,752,815	3,537,848	0.7
10/22/04	1,754,363	3,563,352	1.6[11]
10/29/04	1,756,580	3,579,480	1.6[11]
11/4/04	622	3,593,416	1.6[11, 12]
11/5/04	2,534	3,595,328	1.4
11/12/04	16,804	3,609,598	1.4
12/6/04	64,735	3,657,529	1.4
12/17/04	87,937	3,680,731	2.0
12/23/04	106,802	3,699,596	1.4
12/30/04	130,647	3,723,441	2.4
1/5/05	156,935	3,749,729	3.13
1/6/05	163,038	3,755,832	3.39
1/14/05	188,997	3,781,791	2.27
1/28/05	206,004	3,798,798	0.84
2/7/05	257,671	3,850,465	3.61
2/14/05	275,063	3,867,857	1.70
3/4/05	347,248	3,940,042	2.78
3/10/05	378,996	3,971,790	3.73
3/21/05	425,475	4,018,269	2.96
4/1/05	471,716	4,064,510	2.90

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
4/6/05	486,288	4,079,082	2.02
4/8/05	497,476	4,090,270	3.88
4/15/05	527,243	4,120,037	2.95
4/22/05	553,539	4,146,333	2.61
5/2/05	602,308	4,195,102	3.39
5/6/05	613,012	4,205,806	1.86
5/16/05	651,533	4,244,327	2.50
7/5/05	651,533	4,244,327	0.00
7/22/05	739,986	4,332,780	3.61
7/29/05	773,192	4,365,986	3.29
8/5/05	801,337	4,394,131	2.79
8/12/05	827,552	4,420,346	2.60
8/19/05	852,397	4,445,191	2.46
8/21/05	855,601	4,448,395	1.11
8/26/05	875,312	4,468,106	2.73
9/2/05	892,192	4,484,986	1.67
9/9/05	908,580	4,501,374	1.62
9/19/05	923,094	4,515,888	1.01
9/23/05	936,118	4,528,912	2.26
10/3/05	**953,125**	**4,545,919**	**0.98**[13]
10/7/05	**953,304**	**4,546,098**	**0.00**
10/14/05	**953,994**	**4,546,788**	**0.00**
10/21/05	**953,994**	**4,546,788**	**0.00**
10/28/05	**972,784**	**4,565,578**	**1.86**
11/4/05	**987,065**	**4,579,859**	**1.42**
11/14/05	**1,012,997**	**4,605,791**	**1.80**

Table 3. Groundwater Extraction System Totalizer Readings - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Date	Totalizer Reading (gal)	Total Discharged (gallons)	Average Flow Rate Since Previous Reading (gal/min)
12/2/05	**1,053,358**	**4,646,152**	**1.56**
12/9/05	**1,082,403**	**4,675,197**	**2.88**
12/16/05	**1,108,495**	**4,701,289**	**2.59**
12/23/05	**1,140,592**	**4,733,386**	**3.18**

NOTES:

[1] 8/17/01 meter reading is incorrect due to system malfunction.
[2] Discharge for period between 8/17/01 and 8/20/01 is calculated at 1 gallon per minute.
[3] System inoperative between 8/17/01 and 8/20/01.
[4] New flow totalizer installed 11/5/01 at 1:00 PM.
[5] System inoperative between 1/02/02 and 1/10/02 for carbon vessel recharge and carbon vessel repair.
[6] System inoperative between 6/7/02 and 6/13/02 due to compressor failure.
[7] Totalizer malfunctioned and reset to zero on 10/18/02.
[8] System inoperative between 5/3/04 and 5/4/04 due to compressor malfunction.
[9] System operating but totalizer inoperative between 8/6/04 and 8/26/04. Average flow rate for the quarter was used to estimate actual flow rate.
[10] System inoperative between 10/1/04 and 10/4/04.
[11] System operating but totalizer inoperative. Average flow rate for the quarter was used to estimate actual flow rate.
[12] New flow totalizer installed 11/4/04. Readings begin at 622 gallons.
[13] System inoperative between 9/30/05 and 10/21/05 for compressor replacement.

Table 4. Influent Analytical Results - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Sample ID	Date	TPPH(G)	TPH(D)	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE
		<----------PPB---------->						
Influent	2/2/01[1]	____	____	310	56	84	130	____
Influent	2/8/01[1]	9,300	<50	____	____	____	____	38,000
Influent	5/17/01	6,500	<50	1.3	3.2	2.2	7.3	____
Influent	5/21/01	2,500	210	<12.5	<12.5	<12.5	<12.5	4,200 [2]
Influent A	8/13/01	12,000	1900	490	400	95	1000	8,200 [3]
Influent B	8/13/01	1,500	1200	130	7.7	5.1	55	1,900 [4]
Influent A	8/23/01	1,600	1400	170	6.1	4.1	26	2,200 [5]
Influent B	8/23/01	2,000	1800	72	18	<2.5	83	6,500 [6]
Influent A	11/20/01	1,900	720	48	16	<5	93	4,500 [7]
Influent B	11/20/01	2,700	1,500	52	53	<25	140	3,700 [8]
Influent A	2/14/02	570	1,800	50	6.1	28	78	310 [9]
Influent B	2/14/02	74	110	1.4	7.9	<0.50	6.9	3,600 [10]
Influent A	5/6/02	84	160	4.9	0.58	1.6	3.9	690 [2]
Influent B	5/6/02	940	1,300	<5	220	14	111	1,600 [2]
Influent A	8/8/02	530	300	11	7.6	2.5	18	420 [2]
Influent B	8/8/02	460	970	5.9	3.6	1.1	10	690 [2]

Table 4. Influent Analytical Results - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Sample ID	Date	TPPH(G)	TPH(D)	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE
		<----------PPB---------->						
Influent A	11/05/02	730	380	<0.5	<0.5	<0.5	<1	3,700 [11]
Influent B	11/05/02	84	580	7.8	4.4	<2.5	23	780 [2]
Influent A	2/18/03	360	240	5.6	<0.5	0.71	1.5	4,300 [2]
Influent B	2/18/03	1,300	<63	<2.5	<2.5	<2.5	<2.5	1,900 [2]
Influent A	5/14/03	120	530	1.4	<1	<1	<1	1,100 [12]
Influent B	5/14/03	440	200	4.9	2.2	1.3	8.5	1,200 [2]
Influent A	8/14/03	220	230	2.0	<0.5	0.69	3.1	360 [13]
Influent B	8/14/03	210	330	6.6	<0.5	0.62	<1	280 [13]
Influent	12/22/03	160	630	13	<0.5	<0.5	1.3	110 [14]
Influent	3/16/04	240	250	7.0	0.52	<1	4.5	390
Influent	5/11/04	540	<50	<5	<5	<5	<5	760
Influent	7/22/04	410	<50	8.4	<5	<5	<5	600
Influent	10/4/04	200	1,800	30	<2.5	<2.5	<5	190
Influent	1/5/05	<50	<50 [15]	10	<2.5	<2.5	6.7	530
Influent	4/6/05	260	190	<2.5	<2.5	<2.5	<2.5	370
Influent	7/6/05	270	350	12	<2.5	<2.5	2.7	360
Influent	**10/3/05**	**<250**	**75**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	**84**

Table 4. Influent Analytical Results - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

Explanation:

TPPH(G)	=	total purgeable petroleum hydrocarbons as gasoline
TPH(D)	=	total purgeable petroleum hydrocarbons as diesel
MTBE	=	methyl tertiary butyl ether
ppb	=	part per billion
TBA	=	tertiary butanol
TAME	=	tertiary amyl methyl ether

NOTES:

[1] Samples dated 2/2/01 and 2/8/01 collected by Earth Engineers. 2/8/01 sample was analyzed for VOCs by EPA Method 8260. Consult analytical laboratory results for other analytes detected.
[2] Other oxygenates not detected.
[3] TAME and TBA also detected at 190 and 2,600 ppb respectively. Other oxygenates not detected.
[4] TBA also detected at 950 ppb. Other oxygenates not detected.
[5] TBA also detected at 810 ppb. Other oxygenates not detected.
[6] TBA also detected at 1,600 ppb. Other oxygenates not detected.
[7] TBA also detected at 640 ppb. Other oxygenates not detected.
[8] TBA also detected at 810 ppb. Other oxygenates not detected.
[9] TAME and 1,2 Dichloroethane also detected at 5.7 and 2.8 ppb respectively. Other oxygenates not detected.
[10] TAME also detected at 66 ppb. Other oxygenates not detected.

[11] TBA also detected at 760 ppb. Other oxygenates not detected.
[12] TBA also detected at 350 ppb. Other oxygenates not detected.
[13] TBA detected in Influent A and Influent B at 80 and 93 ppb respectively. Other oxygenates not detected.
[14] TBA detected in Influent sample at 44 ppb. Other oxygenates not detected.
[15] 430 ppb light Oil is in the sample (C12-C36. No Diesel pattern.

Table 5: Water Levels in Pumping Wells - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, CA

Date	PMCS #1	PMCS #2	PMCS #3	PMCS #4	PMCS #5	PMCS #6	GWE/ SVE #1	GWE/ SVE #2	GWE/ SVE #3	GWE/ SVE #4	GWE/ SVE #5	GWE/ SVE #6	GWE/ SVE #7	GWE/S VE #8	GWE/S VE #9	GWE #10
	<----------Depth to Water (Ft)---------->															
2/15/01	33.9	28.2	26.3	26.1	26.0	25.35	-	-	-	-	-	-	-	-	-	-
5/16/01	15.16	15.31	16.05	16.24	14.72	13.32	-	-	-	-	-	-	-	-	-	-
5/17/01	-	23.53	26.15	22.75	24.88	24.87	-	-	-	-	-	-	-	-	-	-
5/21/01	-	23.52	26.15	24.82	24.91	24.90	-	-	-	-	-	-	-	-	-	-
6/18/01	-	23.5	26.12	24.83	24.92	24.90	-	-	-	-	-	-	-	-	-	-
7/5/01	-	-	-	-	-	-	24.15	24.50	20.55	24.01	24.21	23.48	25.22	23.19	22.84	15.51
7/27/01	24.62	23.53	26.08	24.80	24.88	24.87	24.08	29.40	20.42	23.90	24.10	23.41	25.09	23.10	23.01	15.45
8/14/01	-	23.51	26.11	22.89	24.89	24.90	22.30	28.75	22.2	23.81	-	-	-	-	-	-
8/17/01	24.80	23.62	26.12	24.79	24.90	24.92	-	-	-	-	-	-	-	-	-	-
9/18/01	-	23.49	26.12	24.81	24.92	24.92	23.96	29.51	20.53	23.90	24.10	23.46	25.11	23.18	23.01	15.81
9/27/01	-	23.51	26.10	24.10	25.42	25.40	-	-	-	-	-	-	-	-	-	-
10/11/01	-	-	-	-	-	-	24.02	29.41	20.52	23.90	24.12	23.46	25.14	23.18	22.91	15.45
11/2/01	24.80	23.50	26.10	25.40	25.40	25.45	24.05	29.45	20.50	23.95	24.15	23.40	25.14	23.15	22.96	15.40
12/4/01	24.62	23.60	26.00	25.70	25.80	25.70	24.03	29.40	20.40	23.80	24.15	23.30	25.30	23.20	22.90	15.50
2/28/02	---	23.5	26.0	22.5	25.0	25.0	24.0	22.0	22.6	24.0	23.3	23.3	24.0	23.0	23.0	15.0
5/8/02	---	23.51	26.42	23.10	24.86	23.70	23.97	14.65	22.05	23.80	24.15	23.34	22.19	22.27	11.85	12.16
8/1/02	24.60	23.65	30.60	30.35	25.40	24.80	24.00	29.40	22.50	23.90	24.10	23.35	23.95	23.07	22.9	15.36
8/21/02	24.60	23.65	30.60	30.35	25.40	24.80	24.00	29.40	22.50	23.90	24.10	23.35	23.95	23.07	22.9	15.36

Table 5: Water Levels in Pumping Wells - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, CA

Date	PMCS #1	PMCS #2	PMCS #3	PMCS #4	PMCS #5	PMCS #6	GWE/ SVE #1	GWE/ SVE #2	GWE/ SVE #3	GWE/ SVE #4	GWE/ SVE #5	GWE/ SVE #6	GWE/ SVE #7	GWE/S VE #8	GWE/S VE #9	GWE #10
	<----------Depth to Water (Ft)---------->															
11/1/02	24.60	23.65	30.60	30.35	25.40	24.80	24.00	29.40	22.50	23.90	24.10	23.35	23.95	23.07	22.9	15.36
1/29/02	24.60	23.65	30.60	30.35	25.40	24.80	24.00	29.40	22.50	23.90	24.10	23.35	23.95	23.07	22.9	15.36
4/25/03	24.60	23.65	30.60	30.35	25.40	24.80	24.00	29.40	22.50	23.90	24.10	23.35	23.95	23.07	22.9	15.36
7/25/03	24.60	23.65	30.60	30.35	25.40	24.80	24.00	29.40	22.50	23.90	24.10	23.35	23.95	23.07	22.9	15.36
3/16/04	24.60	23.65	30.60	30.35	25.40	24.80	24.00	29.40	22.50	23.90	24.10	23.35	23.95	23.07	22.9	15.36
10/8/04	---	23.50	28.06	17.83	---	24.56	23.95	29.35	22.50	23.30	24.10	23.30	25.25	23.02	22.85	---
4/22/05	26.30	23.44	25.95	12.19	24.72	18.61	10.55	29.50	10.51	8.80	24.23	12.45	22.76	23.15	22.90	---
9/9/05	---	26.02	14.12	23.44	24.78	24.40	---	---	22.62	---	---	23.45	25.30	23.15	---	15.50
1/27/06	**---**	**14.95**	**12.40**	**24.27**	**24.27**	**9.21**	**10.26**	**11.88**	**23.75**	**9.57**	**11.49**	**13.40**	**---**	**22.15**	**---**	**8.78**

Note: If water level in pumping well is below Top of Pump, measurement is to Top of Pump only.
Note: System inoperative from 4/30/01 to 5/16/01. PMCS wells reactivated 5/16/01.
Note: Water levels shown in table increased by 1 ft from water levels measured in field due to depth of casing in well boxes.
Main GWE system reactivated 6/15/01.

Table 6. Sparge Point Flow Rates - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

DATE	AS #1	AS #2	AS #3	AS #4	AS #5	AS #6	AS #7	AS #8	AS #9	AS #10	AS #11	AS #12	AS #13	AS #14
	<----------Flow Rate (Standard Cubic Feet Per Minute)---------->													
7/5/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
7/23/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
7/27/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
8/1/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
8/10/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
8/28/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
9/10/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
9/27/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
10/4/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
10/9/01	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2	≤2
10/16/01	≤2	≤2	≤2	≤2	≤2	4	≤2	4	≤2	10	4	≤2	≤2	≤2
10/25/01	≤2	≤2	6	3	5	6	3	4	4	7	10	8	4	8
11/2/01	5	---	6	6	6	7	2	5	5	7	6	6	6	6
11/20/01	5	---	7	6	6	7	2	7	7	5	6	6	7	6
12/12/01	5	---	7	4	6	9	2	6	7	6	9	7	8	7
2/7/02	5	---	5	5	7	8	3	5	6	5	6	5	6	5
2/21/02	8	---	5	5	5	4	6	4	8	6	8	5	8	8
3/5/02	8	---	5	5	4	5	5	5	8	5	8	5	8	8
3/14/02	8	---	5	5	5	4	6	4	8	6	8	5	8	8

Table 6. Sparge Point Flow Rates - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

DATE	AS #1	AS #2	AS #3	AS #4	AS #5	AS #6	AS #7	AS #8	AS #9	AS #10	AS #11	AS #12	AS #13	AS #14
	<----------Flow Rate (Standard Cubic Feet Per Minute)---------->													
4/5/02	8	---	8	10	15	2	20	8	7	7	9	10	8	9
4/19/02	8	---	8	10	15	2	20	8	7	7	9	10	8	9
5/2/02	8	---	8	10	12	4	16	8	5	5	10	10	6	10
5/16/02	6	---	6	12	8	4	16	8	6	6	10	8	6	8
5/21/02	8	---	10	15	2	18	8	6	6	10	10	8	8	10
6/7/02	6	---	2	4	6	2	6	4	6	8	8	8	---	2
6/20/02	6	---	2	4	6	2	6	4	6	8	8	8	---	2
7/19/02	6	---	2	4	6	2	6	4	6	8	8	8	---	2
8/1/02	7	---	7	4	2	4	2	4	4	7	8	8	---	6
8/16/02 [1]	7	4	6	4	2	4	3	5	5	6	8	8	2	6
9/19/02	6	4	6	5	2	4	4	5	5	4	6	8	2	5
11/11/02	5	6	8	6	2	5	6	2	2	5	6	4	4	6
11/27/02	4	2	4	6	2	4	2	4	2	4	2	8	4	4
12/13/02	4	6	2	4	8	8	4	6	4	8	4	2	2	4
1/16/03	5	2	4	5	3	4	2	4	4	6	2	6	2	2
2/14/03 [2]	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	4	0 - 2	8	0 - 2	0 - 2
2/28/03	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	4	2	4	2
3/28/03	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4/24/03	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2

Table 6. Sparge Point Flow Rates - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

5/8/03	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	5	0 - 2	0 - 2	4
7/11/03	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
8/29/03	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2

DATE	**Operating Air Sparge Points**	**Flow per AS Point (CFM)**	**Total Flow (CFM)**	**Operating Hours**	**Notes**
9/12/03	AS #1 - AS #14	0 - 1	0 - 14		all points set to 1cfm or less
9/26/03	AS #1 - AS #14	0 - 1	0 - 14	335	
10/3/03	AS #1 - AS #14	0 - 1	0 - 14	166	
10/10/03	AS #1 - AS #14	0 - 1	0 - 14	168	
10/17/03	AS #1 - AS #14	0 - 1	0 - 14	158	
10/24/03	AS #1 - AS #14	0 - 1	0 - 14	168	
10/31/03	AS #1 - AS #14	0 - 1	0 - 14	167	
11/19/03	AS #1 - AS #14	0 - 1	0 - 14	456	
12/22/03	AS #1 - AS #14	0 - 1	0 - 14	609	
1/7/04	AS #1 - AS #14	0 - 1	0 - 14	---	flow meter inoperative
1/14/04	AS #1 - AS #14	0 - 1	0 - 14	---	flow meter inoperative
1/29/04	AS #1 - AS #14	0 - 1	0 - 14	0	
2/13/04	AS #1 - AS #14	0 - 1	0 - 14	719	
2/27/04	AS #1 - AS #14	0 - 1	0 - 14	332	
3/3/04	AS #1 - AS #14	0 - 1	0 - 14	124	

Table 6. Sparge Point Flow Rates - Redwood Oil Company Bulk Plant, 455 Yolanda, Santa Rosa, California

DATE	Operating Air Sparge Points	Flow per AS Point (CFM)	Total Flow (CFM)	Operating Hours	Notes
3/10/04	AS #1 - AS #14	0 - 1	0 - 14	0	
3/16/04	AS #1 - AS #14	0 - 1	0 - 14	0	
3/25/04	AS #1 - AS #14	0 - 1	0 - 14	0	
3/31/04	AS #1 - AS #14	0 - 1	0 - 14	0	
4/9/04	AS #1 - AS #14	0 - 1	0 - 14	0	
5/4/04	AS #1 - AS #14	0 - 1	0 - 14	---	flow meter inoperative
6/4/04	AS #1 - AS #14	0 - 1	0 - 14	746	
7/9/04	AS #1 - AS #14	0 - 1	0 - 14	---	flow meter inoperative
8/2/04	AS #1 - AS #14	0 - 1	0 - 14	739	
8/26/04	AS #1 - AS #14	0 - 1	0 - 14	547	
12/30/04	AS #1 - AS #14	0 - 1	0 - 14	2643	readings switched to quarterly
3/21/05	AS #1 - AS #14	0 - 1	0 - 14	1508	
4/24/05	AS #1 - AS #14	0 - 1	0 - 14	699	system deactivated

Notes: Two standard cubic feet per minute is the lowest reading available on flow meter

[1] AS system inoperative between 8/16/02 and 9/9/02 during cyclic shutdown of SVE system

[2] System functioning but flow meters inoperative

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-1	01/11/91	---	102.77	---	--	9 - 24	7 - 24	0 - 7	
	02/08/91	---		---	---				
	03/08/91	---		---	---				
	06/13/91	22.02		80.75	0.00				
	07/09/91	22.22		80.55	0.00				
	08/01/91	22.00		80.77	0.00				
	08/29/91	21.73		81.04	0.00				
	09/11/91	21.75		81.02	0.00				
	10/08/91	22.04		80.73	0.00				
	11/08/91	22.23		80.54	0.00				
	12/11/91	---		---	0.00				
	01/13/92	21.41		81.36	0.00				
	02/11/92	20.25		82.52	0.00				
	03/11/92	12.79		89.98	0.00				
	04/13/92	13.76		89.01	0.00				
	05/15/92	15.49		87.28	0.00				
	06/15/92	16.85		85.92	0.00				
	07/16/92	17.74		85.03	0.00				
	08/18/92	17.56		85.21	0.00				
	09/18/92	18.62		84.15	0.00				
	12/08/92	18.38		84.39	0.00				
	03/10/93	13.29		89.48	0.00				
	06/04/93	12.77		90.00	0.00				
	10/14/93	23.66		79.11	0.00				
	04/11/94	14.58		88.19	0.00				
	10/19/94	14.51		88.26	0.00				
	04/11/95	9.18		93.59	0.00				
	03/06/96	10.16		92.61	0.00				
	10/14/96	12.36	102.78	90.42	0.00				Top of casing elevations re-surveyed.
	04/09/97	10.75		92.03	0.00				
	10/29/97	13.28		89.50	0.00				
	04/07/98	8.06		94.72	0.00				
	10/07/98	11.51		91.27	0.00				
	04/07/99	8.71		94.07	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-1	10/19/99	11.98	102.78	90.80	0.00	9 - 24	7 - 24	0 - 7	
	04/26/00	---		---	0.00				Well inaccessible due to construction activities.
	10/30/00	11.41	146.16	134.75	0.00				Top of casing elevations re-surveyed.
	02/01/01	11.28		134.88	0.00				
	04/23/01	14.29		131.87	0.00				
	07/23/01	14.88		131.28	0.00				
	10/23/01	16.46		129.70	0.00				
	01/21/02	12.77	148.81	136.04	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	12.80		136.01	0.00				
	07/22/02	13.20		135.61	0.00				
	10/22/02	13.76		135.05	0.00				
	01/27/03	13.00		135.81	0.00				
	04/21/03	12.85		135.96	0.00				
	07/21/03	13.36		135.45	0.00				
	01/20/04	10.04		138.77	0.00				
	07/19/04	13.04		135.77	0.00				
	01/18/05	9.96		138.85	0.00				
	07/12/05	9.40		139.41	0.00				
	02/01/06	**8.69**		**140.12**	**0.00**				
MW-2	01/11/91	21.36	102.18	80.82	0.00	10 - 25	7.5 - 25	0 - 7.5	
	02/08/91	18.24		83.94	0.00				
	03/08/91	16.52		85.66	0.00				
	06/13/91	20.95		81.23	0.00				
	07/09/91	20.98		81.20	0.00				
	08/01/91	20.98		81.20	0.00				
	08/29/91	21.28		80.90	0.00				
	09/11/91	21.36		80.82	0.00				
	10/08/91	21.83		80.25	0.22				
	11/08/91	20.56		81.62	0.00				
	12/11/91	21.08		81.10	0.00				
	01/13/92	18.56		83.62	0.00				
	02/11/92	14.30		87.88	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-2	03/11/92	11.81	102.18	90.37	0.00	10 - 25	7.5 - 25	0 - 7.5	
	04/13/92	13.23		88.95	0.00				
	05/15/92	15.09		87.09	0.00				
	06/15/92	16.95		85.23	0.00				
	07/16/92	17.96		84.22	0.00				
	08/18/92	17.76		84.42	0.00				
	09/18/92	18.75		83.43	0.00				
	12/08/92	14.66		87.52	0.00				
	03/10/93	12.80		89.38	0.00				
	06/04/93	13.25		88.93	0.00				
	10/14/93	16.20		85.98	0.00				
	04/11/94	14.85		87.33	0.00				
	10/19/94	15.04		87.14	0.00				
	04/11/95	9.77		92.41	0.00				
	03/06/96	10.12		92.06	0.00				
	10/14/96	12.45		89.74	0.00				
	04/10/97	10.79		91.40	0.00				
	10/28/97	13.32		88.87	0.00				
	04/07/98	8.02		94.17	0.00				
	10/07/98	11.64		90.55	0.00				
	04/07/99	8.79		93.40	0.00				
	10/19/99	12.05		90.14	0.00				
	04/26/00	---		---	---				Well inaccessible due to construction activities.
	10/30/00	10.80	145.32	134.52	0.00				Top of casing elevations re-surveyed.
	02/01/01	10.70		134.62	0.00				
	04/23/01	13.74		131.58	0.00				
	07/23/01	14.22		131.10	0.00				
	10/23/01	16.04		129.28	0.00				
	01/21/02	13.36		134.61	0.00				
	04/25/02	13.80		134.17	0.00				
	07/22/02	13.81		134.16	0.00				
	10/22/02	13.82		134.15	0.00				
	01/27/03	13.18	147.97	134.79	0.00				Top of casing elevations were surveyed for EDF compliance.

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-2	04/21/03	12.34	147.97	135.63	0.00	10 - 25	7.5 - 25	0 - 7.5	
	07/21/03	13.01		134.96	0.00				
	01/20/04	11.81		136.16	0.00				
	07/19/04	12.84		135.13	0.00				
	01/18/05	11.14		136.83	0.00				
	07/12/05	11.02		136.95	0.00				
	02/01/06	**10.22**		**137.75**	**0.00**				
MW-3	01/11/91	---	101.94	---	---	18 - 33	17 - 33	0 - 17	
	02/08/91	---		---	---				
	03/08/91	28.28		73.66	0.00				
	06/13/91	---		---	---				
	07/09/91	---		---	---				
	08/01/91	---		---	---				
	08/29/91	---		---	---				
	09/11/91	---		---	---				
	10/08/91	---		---	---				
	11/08/91	---		---	---				
	12/11/91	---		---	---				
	01/13/92	---		---	---				
	02/11/92	18.82		83.12	0.00				
	03/11/92	11.76		90.18	0.00				
	04/13/92	12.25		89.69	0.00				
	05/15/92	15.35		86.59	0.00				
	06/15/92	17.61		84.33	0.00				
	07/16/92	19.86		82.08	0.00				
	08/18/92	19.66		82.28	0.00				
	10/18/92	26.00		75.94	0.00				
	12/08/92	17.24		84.70	0.00				
	03/10/93	14.60		87.34	0.00				
	06/04/93	13.95		87.99	0.00				
	10/14/93	---		---	---				
	04/11/94	16.58		85.36	0.00				
	10/19/94	16.01		85.93	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-3	04/11/95	11.12	101.94	90.82	0.00	18 - 33	17 - 33	0 - 17	
	03/06/96	11.72		90.22	0.00				
	10/14/96	13.94	101.97	88.03	0.00				
	04/10/97	12.08		89.90	0.01				
	10/29/97	16.02		85.99	0.02				
	04/07/98	9.97		92.00	0.00				
	10/07/98	12.66		89.31	0.00				
	04/07/99	9.70		92.27	0.00				
	10/19/99	13.15		88.82	0.00				
	04/26/00	---		---	---				Well inaccessible due to construction activities.
	10/30/00	---	145.10	---	---				Well plugged at seven feet, no water.
	02/01/01	12.33		132.77	0.00				
	04/23/01	---		---	---				Well was inaccessible
	07/23/01	14.98		130.12	0.00				
	10/23/01	17.00		128.10	0.00				
	01/21/02	13.67	147.75	134.08	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	14.50		133.25	0.00				
	07/22/02	14.96		132.79	0.00				
	10/22/02	15.22		132.53	0.00				
	01/27/03	14.21		133.54	0.00				
	04/21/03	13.47		134.28	0.00				
	07/21/03	14.43		133.32	0.00				
	01/20/04	12.00		135.75	0.00				
	07/19/04	14.03		133.72	0.00				
	01/18/05	11.11		136.64	0.00				
	07/12/05	11.68		136.07	0.00				
	02/01/06	**10.23**		**137.52**	**0.00**				
MW-4	01/11/91	---	101.47	---	---	10 - 25	7 - 25	0 - 7	
	02/08/91	---		---	---				
	03/08/91	---		---	---				
	06/13/91	---		---	---				
	07/09/91	---		---	---				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-4	08/01/91	---	101.47	---	---	10 - 25	7 - 25	0 - 7	
	08/29/91	---		---	---				
	09/11/91	---		---	---				
	10/08/91	---		---	---				
	11/08/91	---		---	---				
	12/11/91	---		---	---				
	01/13/92	24.47		77.00	0.00				
	02/11/92	26.06		75.41	0.00				
	03/11/92	23.46		78.01	0.00				
	04/13/92	24.25		77.22	0.00				
	05/15/92	---			---				
	06/15/92	---			---				
	07/16/92	---		---	---				
	08/18/92	---		---	---				
	09/18/92	---		---	---				
	12/08/92	---		---	---				
	03/10/93	---		---	---				
	06/04/93	---		---	---				
	10/14/93	---		---	---				
	04/11/94	---		---	---				
	10/19/94	---		---	---				
	04/11/95	---		---	---				
	03/06/96	16.52		84.95	0.00				
	10/14/96	20.39	101.70	81.31	0.00				
	04/10/97	16.02		85.68	0.00				
	10/29/97	21.61		80.09	0.00				
	04/07/98	11.30		90.40	0.00				
	10/07/98	15.53		86.17	0.00				
	04/07/99	11.95		89.75	0.00				
	10/19/99	15.15		86.55	0.00				
	04/26/00	10.38		91.32	0.00				
	06/01/00	---		---	---				
	10/30/00	13.78	145.47	131.69	0.00				Top of casing elevations were surveyed.
	02/01/01	13.41		132.06	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-4	04/23/01	19.27	145.47	126.20	0.00	10 - 25	7 - 25	0 - 7	
	07/23/01	17.65		127.82	0.00				
	10/23/01	19.88		125.59	0.00				
	01/21/02	13.62	148.12	134.50	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	14.47		133.65	0.00				
	07/22/02	15.57		132.55	0.00				
	10/22/02	17.23		130.89	0.00				
	01/27/03	13.00		135.12	0.00				
	04/21/03	13.42		134.70	0.00				
	07/21/03	14.15		133.97	0.00				
	01/20/04	11.67		136.45	0.00				
	07/19/04	14.47		133.65	0.00				
	01/18/05	11.31		136.81	0.00				
	07/12/05	11.53		136.59	0.00				
	02/01/06	**9.81**		**138.31**	**0.00**				
MW-5	06/13/91	25.84	101.37	75.53	0.00	34.5 - 44.5	32.5 - 44.5	0 - 32.5	
	07/09/91	25.98		75.39	0.00				
	08/01/91	23.22		78.15	0.00				
	08/29/91	22.79		78.58	0.00				
	09/11/91	22.58		78.79	0.00				
	10/08/91	27.46		73.91	0.00				
	11/08/91	24.36		77.01	0.00				
	12/11/91	23.35		78.02	0.00				
	01/13/92	23.96		77.41	0.00				
	02/11/92	23.67		77.70	0.00				
	03/11/92	22.01		79.36	0.00				
	04/13/92	21.50		79.87	0.00				
	05/15/92	18.96		82.41	0.00				
	06/15/92	18.72		82.65	0.00				
	07/16/92	19.88		81.49	0.00				
	08/18/92	19.38		81.99	0.00				
	09/18/92	19.60		81.77	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-5	12/08/92	20.04	101.37	81.33	0.00	34.5 - 44.5	32.5 - 44.5	0 - 32.5	
	03/10/93	16.60		84.77	0.00				
	06/04/93	15.96		85.41	0.00				
	10/14/93	18.68		82.69	0.00				
	04/11/94	14.46		86.91	0.00				
	10/19/94	15.56		85.81	0.00				
	04/11/95	9.52		91.85	0.00				
	03/06/96	10.60		90.77	0.00				
	10/14/96	11.81		89.53	0.00				
	04/09/97	10.08		91.26	0.00				
	10/29/97	15.05		86.29	0.00				
	04/07/98	8.01		93.33	0.00				
	10/07/98	9.82		91.52	0.00				
	04/07/99	9.12		92.22	0.00				
	10/19/99	12.96		88.38	0.00				
	04/26/00	9.28		92.06	0.00				
	10/30/00	---	145.73	---	---				Well inaccessible due to area flooding
	02/01/01	11.52		134.21	0.00				
	04/23/01	15.25		130.48	0.00				
	07/23/01	13.22		132.51	0.00				
	10/23/01	13.15		132.58	0.00				
	01/21/02	12.50	148.38	135.88	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	12.02		136.36	0.00				
	07/22/02	11.00		137.38	0.00				
	10/22/02	11.40		136.98	0.00				
	01/27/03	10.78		137.60	0.00				
	04/21/03	9.15		139.23	0.00				
	01/20/04	8.00		140.38	0.00				
	07/19/04	10.53		137.85	0.00				
	01/18/05	10.09		138.29	0.00				
	07/12/05	7.11		141.27	0.00				
	02/01/06	**7.54**		**140.84**	**0.00**				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-5A	10/14/96	11.80	101.37	89.57	0.00	50 - 60	49 - 60	0 - 49	
	04/10/97	10.16		91.21	0.00				
	10/29/97	16.80		84.57	0.00				
	04/07/98	9.64		91.73	0.00				
	10/07/98	10.09		91.28	0.00				
	04/07/99	7.55		93.82	0.00				
	10/19/99	---		---	---				Well casing was damaged.
	04/26/00	7.58		93.79	0.00				
	10/30/00	---	145.70	---	---				Well inaccessible due to area flooding
	02/01/01	11.17		134.53	0.00				
	04/23/01	11.75		133.95	0.00				
	07/23/01	12.58		133.12	0.00				
	10/23/01	13.71		131.99	0.00				
	01/21/02	12.55	148.35	135.80	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	11.45		136.90	0.00				
	07/22/02	10.75		137.60	0.00				
	10/22/02	10.90		137.45	0.00				
	01/27/03	10.31		138.04	0.00				
	04/21/03	10.35		138.00	0.00				
	07/19/04	10.03		138.32	0.00				
	01/18/05	10.15		138.20	0.00				
	07/12/05	8.42		139.93	0.00				
	02/01/06	**8.60**		**139.75**	**0.00**				
MW-7	06/13/91	34.93	100.86	65.93	0.00	51 - 60	49 - 60	0 - 49	
	07/09/91	35.05		65.81	0.00				
	08/01/91	35.76		65.10	0.00				
	08/29/91	37.28		63.58	0.00				
	09/11/91	36.71		64.15	0.00				
	10/08/91	36.59		64.27	0.00				
	11/08/91	36.31		64.55	0.00				
	12/11/91	36.55		63.31	0.00				
	01/13/92	37.03		63.83	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-7	02/11/92	36.20	100.86	64.66	0.00	51 - 60	49 - 60	0 - 49	
	03/11/92	34.51		66.35	0.00				
	04/13/92	33.85		67.01	0.00				
	05/15/92	33.04		67.82	0.00				
	06/15/92	35.53		65.33	0.00				
	07/16/92	35.42		65.44	0.00				
	08/18/92	35.03		65.83	0.00				
	09/18/92	35.52		65.34	0.00				
	12/08/92	34.36		66.50	0.00				
	03/10/93	30.21		70.65	0.00				
	06/04/93	29.33		71.53	0.00				
	10/14/93	32.23		68.63	0.00				
	04/11/94	28.87		71.99	0.00				
	10/19/94	31.19		69.67	0.00				
	04/11/95	22.49		78.37	0.00				
	03/06/96	21.44		79.42	0.00				
	10/14/96	---	101.03	---	---				Top of casing elevations re-surveyed.
	04/09/97	20.67		80.36	0.00				
	10/29/97	24.71		76.32	0.00				
	04/07/98	16.96		84.07	0.00				
	10/07/98	19.46		81.57	0.00				
	04/07/99	15.27		85.76	0.00				
	10/19/99	18.79		82.24	0.00				
	04/26/00	13.45		87.58	0.00				
	10/30/00	17.01	144.72	127.71	0.00				Top of casing elevations re-surveyed.
	02/01/01	16.17		128.55	0.00				
	04/23/01	18.12		126.60	0.00				
	07/23/01	19.53		125.19	0.00				
	10/23/01	22.00		122.72	0.00				
	01/21/02	16.30	147.37	131.07	0.00				Top of casing elevations were resurveyed for EDF compliance.
	04/25/02	16.27		131.10	0.00				
	07/22/02	17.81		129.56	0.00				
	10/22/02	18.90		128.47	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-7	01/27/03	15.20	147.37	132.17	0.00	51 - 60	49 - 60	0 - 49	
	04/21/03	14.92		132.45	0.00				
	07/21/03	16.27		131.10	0.00				
	01/20/04	14.37		133.00	0.00				
	07/19/04	17.90		129.47	0.00				
	01/18/05	12.07		135.30	0.00				
	07/12/05	13.00		134.37	0.00				
	02/01/06	**10.15**		**137.22**	**0.00**				
MW-8	06/13/91	32.68	101.53	68.85	0.00	49 - 59	47.5 - 59	0 - 47.5	
	07/09/91	32.81		68.72	0.00				
	08/01/91	33.26		68.27	0.00				
	08/29/91	34.06		67.47	0.00				
	09/11/91	34.70		66.83	0.00				
	10/08/91	37.63		63.90	0.00				
	11/08/91	35.73		65.80	0.00				
	12/11/91	34.99		66.54	0.00				
	01/13/92	34.34		67.19	0.00				
	02/11/92	34.54		66.99	0.00				
	03/11/92	32.42		69.11	0.00				
	04/13/92	30.46		71.07	0.00				
	05/15/92	30.80		70.73	0.00				
	06/15/92	31.82		69.71	0.00				
	07/16/92	33.01		68.52	0.00				
	08/18/92	32.90		68.63	0.00				
	09/18/92	33.60		67.93	0.00				
	12/08/92	33.07		68.46	0.00				
	03/10/93	26.87		74.66	0.00				
	06/04/93	25.39		76.14	0.00				
	10/14/93	29.90		71.63	0.00				
	04/11/94	26.70		74.83	0.00				
	10/19/94	15.56		85.97	0.00				
	04/11/95	19.87		81.66	0.00				
	03/06/96	19.03		82.50	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-8	10/14/96	22.90	101.42	78.52	0.00	49 - 59	47.5 - 59	0 - 47.5	Top of casing elevation re-surveyed.
	04/10/97	19.06		82.36	0.00				
	10/29/97	23.91		77.51	0.00				
	04/07/98	15.15		86.27	0.00				
	10/07/98	19.02		82.40	0.00				
	04/07/99	14.39		87.03	0.00				
	10/19/99	19.40		82.02	0.00				
	04/26/00	13.78		87.64	0.00				
	10/30/00	17.90	144.85	126.95	0.00				Top of casing elevation re-surveyed.
	02/01/01	16.78		128.07	0.00				
	04/23/01	17.25		127.60	0.00				
	07/23/01	19.18		125.67	0.00				
	10/23/01	21.80		123.05	0.00				
	01/21/02	14.21	147.50	133.29	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	15.82		131.68	0.00				
	07/22/02	15.50		132.00	0.00				
	10/22/02	18.70		128.80	0.00				
	01/27/03	14.85		132.65	0.00				
	04/21/03	14.80		132.70	0.00				
	07/21/03	16.30		131.20	0.00				
	01/20/04	14.31		133.19	0.00				
	07/19/04	15.65		131.85	0.00				
	01/18/05	12.65		134.85	0.00				
	02/01/06	**10.42**		**137.08**	**0.00**				
MW-9	10/14/96	16.40	100.29	83.89	0.00	8 - 26	7 - 26	0 - 7	
	04/10/97	12.98		87.31	0.00				
	10/29/97	16.06		84.23	0.00				
	04/07/98	10.31		89.98	0.00				
	10/07/98	14.48		85.81	0.00				
	04/07/99	10.90		89.39	0.00				
	10/19/99	14.65		82.08	0.00				
	04/26/00	11.51		88.78	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-9	10/30/00	14.42	144.66	130.24	0.00	8 - 26	7 - 26	0 - 7	Top of casing elevation surveyed.
	02/01/01	14.12		130.54	0.00				
	04/23/01	15.54		129.12	0.00				
	07/23/01	16.45		128.21	0.00				
	10/23/01	18.80		125.86	0.00				
	01/21/02	15.52	147.31	131.79	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	14.64		132.67	0.00				
	07/22/02	17.55		129.76	0.00				
	10/22/02	16.00		131.31	0.00				
	01/27/03	13.64		133.67	0.00				
	04/21/03	13.75		133.56	0.00				
	07/21/03	14.60		132.71	0.00				
	01/20/04	13.12		134.19	0.00				
	07/19/04	14.36		132.95	0.00				
	01/18/05	11.76		135.55	0.00				
	02/01/06	**8.65**		**138.66**	**0.00**				
MW-10	04/10/99	12.04	102.04	0.00	0.00	5 - 20	4.5 - 20	0 - 4.5	
	10/19/99	13.33		0.00	0.00				
	04/26/00	9.55		---	0.00				
	10/30/00	10.25	145.40	135.15	0.00				Top of casing elevation surveyed.
	02/01/01	11.37		134.03	0.00				
	04/23/01	13.92		131.48	0.00				
	07/23/01	14.75		130.65	0.00				
	10/23/01	17.21		128.19	0.00				
	01/21/02	13.00	148.05	135.05	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	14.05		134.00	0.00				
	07/22/02	14.30		133.75	0.00				
	10/22/02	14.70		133.35	0.00				
	01/27/03	12.62		135.43	0.00				
	04/21/03	12.81		135.24	0.00				
	07/21/03	13.75		134.30	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-10	01/20/04	11.71	148.05	136.34	0.00	5 - 20	4.5 - 20	0 - 4.5	
	07/19/04	13.36		134.69	0.00				
	01/18/05	10.05		138.00	0.00				
	07/12/05	11.60		136.45	0.00				
	02/01/06	**10.04**		**138.01**	**0.00**				
MW-11	05/08/00	18.21	101.74	83.53	0.00	15-35	13-35	0-13	
	06/07/00	19.05		82.69	0.00				
	10/30/00	23.70	146.37	122.67	0.00				Top of casing elevation surveyed.
	02/01/01	21.73		124.64	0.00				
	04/23/01	20.21		126.16	0.00				
	07/23/01	22.69		123.68	0.00				
	10/23/01	25.65		120.72	0.00				
	01/21/02	17.95	149.02	131.07	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	17.35		131.67	0.00				
	07/22/02	20.10		128.92	0.00				
	10/22/02	21.91		127.11	0.00				
	01/27/03	17.32		131.70	0.00				
	04/21/03	16.36		132.66	0.00				
	07/21/03	18.08		130.94	0.00				
	01/20/04	16.27		132.75	0.00				
	07/19/04	---		---	---				
	02/01/06	**12.83**		**136.19**	**0.00**				
MW-12	05/08/00	20.75	101.15	80.40	0.00	10 - 30	8 - 30	0 - 8	
	06/07/00	21.25		79.90	0.00				
	10/30/00	25.43	146.38	120.95	0.00				Top of casing elevation surveyed.
	02/01/01	24.27		122.11	0.00				
	04/23/01	22.00		124.38	0.00				
	07/23/01	24.11		122.27	0.00				
	10/23/01	26.38		120.00	0.00				
	01/21/02	19.70	149.03	129.33	0.00				Top of casing elevations were surveyed for EDF compliance.

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-12	04/25/02	18.91	149.03	130.12	0.00	10 - 30	8 - 30	0 - 8	
	07/22/02	21.21		127.82	0.00				
	10/22/02	23.98		125.05	0.00				
	01/27/03	18.75		130.28	0.00				
	04/21/03	17.81		131.22	0.00				
	07/21/03	19.71		129.32	0.00				
	01/20/04	18.43		130.60	0.00				
	07/19/04	18.39		130.64	0.00				
	01/18/05	16.94		132.09	0.00				
	02/01/06	**13.53**		**135.50**	**0.00**				
MW-13	05/08/00	22.60	101.81	79.21	0.00	10 - 30	8 - 30	0 - 8	
	06/07/00	23.03		78.78	0.00				
	10/30/00	27.14	147.32	120.18	0.00				Top of casing elevation surveyed.
	02/01/01	26.11		121.21	0.00				
	04/23/01	23.56		123.76	0.00				
	07/23/01	25.76		121.56	0.00				
	10/23/01	27.60		119.72	0.00				Monitoring well has been abandoned.
MW-14	05/08/00	20.37	99.77	79.40	0.00	10-30	8-30	0-8	
	06/07/00	20.72		79.05	0.00				
	10/30/00	24.61	144.96	120.35	0.00				Top of casing elevation surveyed.
	02/01/01	23.57		121.39	0.00				
	04/23/01	21.13		123.83	0.00				
	07/23/01	23.18		121.78	0.00				
	10/23/01	25.50		119.46	0.00				Monitoring well has been abandoned.
MW-15	05/08/00	13.51	---	---	0.00	8-25	7-25	0-7	
	06/07/00	13.73	101.06	87.33	0.00				
	10/30/00	14.64	145.44	130.80	0.00				Top of casing elevation surveyed.
	02/01/01	15.04		130.40	0.00				
	04/23/01	16.72		128.72	0.00				
	07/23/01	19.62		125.82	0.00				
	10/23/01	22.17		123.27	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-15	01/21/02	14.80	148.09	133.29	0.00	8-25	7-25	0-7	Top of casing elevations were surveyed for EDF compliance.
	04/25/02	14.88		133.21	0.00				
	07/22/02	16.47		131.62	0.00				
	10/22/02	18.84		129.25	0.00				
	01/27/03	13.88		134.21	0.00				
	04/21/03	13.31		134.78	0.00				
	07/21/03	14.11		133.98	0.00				
	01/20/04	13.15		134.94	0.00				
	07/19/04	13.12		134.97	0.00				
	01/18/05	11.58		136.51	0.00				
	07/12/05	11.23		136.86	0.00				
	02/01/06	**9.61**		**138.48**	**0.00**				
MW-16	05/08/00	14.85	---	---	0.00	8-25	7-25	0-7	
	06/07/00	15.53	102.58	87.05	0.00				
	10/30/00	18.77	147.68	128.91	0.00				Top of casing elevation surveyed.
	02/01/01	18.17		129.51	0.00				
	04/23/01	14.58		133.10	0.00				
	07/23/01	24.26		123.42	0.00				
	10/23/01	23.40		124.28	0.00				
	01/21/02	14.11	150.33	136.22	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	13.66		136.67	0.00				
	07/22/02	17.60		132.73	0.00				
	10/22/02	18.75		131.58	0.00				
	01/27/03	12.97		137.36	0.00				
	04/21/03	13.98		136.35	0.00				
	07/21/03	14.66		135.67	0.00				
	01/20/04	12.38		137.95	0.00				
	07/19/04	13.41		136.92	0.00				
	01/18/05	11.38		138.95	0.00				
	07/12/05	11.38		138.95	0.00				
	02/01/06	**9.92**		**140.41**	**0.00**				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-17	05/08/00	7.80	103.65	95.85	0.00	8 - 25	7 - 25	0 - 7	
	06/07/00	8.51		95.14	0.00				
	10/30/00	17.00	148.28	131.28	0.00				Top of casing elevation surveyed.
	02/01/01	7.86		140.42	0.00				
	04/23/01	8.38		139.90	0.00				
	08/22/01	11.80		136.48	0.00				
	10/23/01	13.15		135.13	0.00				
	01/21/02	7.10	150.93	143.83	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	6.70		144.23	0.00				
	07/22/02	---		---	---				Well was inaccessible
	10/22/02	11.31		139.62	0.00				
	01/27/03	9.55		141.38	0.00				
	04/21/03	—		—	---				Well was inaccessible
	01/20/04	—		—	---				Well was inaccessible
	07/19/04	---		---	---				
	01/17/05	---		---	---				
	07/12/05	7.07		143.86	0.00				
	02/01/06	**--**		**--**					
MW-18	05/08/00	11.20	99.67	88.47	0.00	8 - 25	7 - 25	0 - 7	
	06/07/00	11.56		88.11	0.00				
	10/30/00	14.79	144.14	129.35	0.00				Top of casing elevation surveyed.
	02/01/01	13.91		130.23	0.00				
	04/23/01	13.30		130.84	0.00				
	07/23/01	14.71		129.43	0.00				
	10/23/01	18.15		125.99	0.00				
	01/21/02	12.15	146.79	134.64	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	12.29		134.50	0.00				
	07/22/02	13.76		133.03	0.00				
	10/22/02	14.76		132.03	0.00				
	01/27/03	11.41		135.38	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-18	04/21/03	11.58	146.79	135.21	0.00	8 - 25	7 - 25	0 - 7	
	07/21/03	12.71		134.08	0.00				
	01/20/04	11.19		135.60	0.00				
	07/19/04	12.67		134.12	0.00				
	01/17/05	10.91		135.88	0.00				
	02/01/06	**8.09**		**138.70**	**0.00**				
MW-19	05/08/00	8.95	100.42	91.47	0.00	8 - 25	7 - 25	0 - 7	
	06/07/00	9.62		90.80	0.00				
	10/30/00	12.66	145.18	132.52	0.00				Top of casing elevation surveyed.
	02/01/01	12.65		132.53	0.00				
	04/23/01	10.55		134.63	0.00				
	07/23/01	12.27		132.91	0.00				
	10/23/01	13.92		131.26	0.00				
	01/21/02	9.44	147.83	138.39	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	9.61		138.22	0.00				
	07/22/02	10.65		137.18	0.00				
	10/22/02	11.66		136.17	0.00				
	01/27/03	9.60		138.23	0.00				
	04/21/03	9.16		138.67	0.00				
	07/21/03	9.55		138.28	0.00				
	01/20/04	9.20		138.63	0.00				
	07/19/04	10.68		137.15	0.00				
	01/17/05	9.33		138.50	0.00				
	02/01/06	**7.02**		**140.81**	**0.00**				
MW-20	06/07/00	9.47	103.13	93.66	0.00	10-25	8-25	6-8	
	10/30/00	11.81	147.48	135.67	0.00				Top of casing elevation surveyed.
	2/15/0112	11.42		136.06	0.00				
	4/23/0113	---		---	---				
	07/23/01	12.37		135.11	0.00				
	10/23/01	13.45		134.03	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-20	01/21/02	9.68	150.13	140.45	0.00	10-25	8-25	6-8	Top of casing elevations were surveyed for EDF compliance.
	04/25/02	—		—	---				Well was inaccessible
	07/22/02	11.41		138.72	0.00				
	10/22/02	11.98		138.15	0.00				
	01/27/03	10.78		139.35	0.00				
	04/21/03	9.87		140.26	0.00				
	07/21/03	12.16		137.97	0.00				
	01/20/04	8.94		141.19	0.00				
	07/19/04	10.78		139.35	0.00				
	01/17/05	8.98		141.15	0.00				
	02/01/06	**12.30**		**137.83**	**0.00**				
V-1	06/13/91	21.89	102.53	80.64	0.00	15.5 - 25.5	13.5 - 25.5	0 - 13.5	
	07/09/91	21.91		80.62	0.00				
	08/01/91	21.34		81.19	0.00				
	08/29/91	21.10		81.43	0.00				
	09/11/91	21.25		81.28	0.00				
	10/08/91	22.88		79.65	0.00				
	11/08/91	22.15		80.38	0.00				
	12/11/91	---		---	---				
	01/13/92	21.28		81.25	0.00				
	02/11/92	18.75		83.78	0.00				
	03/11/92	13.54	102.53	88.99	0.00				
	04/13/92	14.52		88.01	0.00				
	05/15/92	15.18		87.35	0.00				
	06/15/92	16.29		86.24	0.00				
	07/16/92	17.22		85.31	0.00				
	08/18/92	17.08		85.45	0.00				
	09/18/92	18.25		84.28	0.00				
	12/08/92	17.80		84.73	0.00				
	03/10/93	15.59		86.94	0.00				
	06/04/93	14.97		87.56	0.00				
	10/14/93	14.66		87.87	0.00				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
V-1	04/11/94	14.00	102.53	88.53	0.00	15.5 - 25.5	13.5 - 25.5	0 - 13.5	
	10/19/94	13.92		88.61	0.00				
	04/11/95	9.28		93.25	0.00				
	03/06/96	9.72		92.81	0.00				
	10/14/96	11.91	102.51	90.60	0.00				Top of casing elevations were surveyed.
	04/09/97	10.48		92.03	0.00				
	10/29/97	13.96		88.57	0.02				
	04/07/98	8.01		94.50	0.00				
	10/07/98	11.10		91.41	0.00				
	04/07/99	8.15		94.36	0.00				
	10/19/99	11.49		91.02	0.00				
	04/26/00	8.64		93.87	0.00				
	10/30/00	11.85	146.85	135.00	0.00				Top of casing elevations were surveyed.
	02/26/01	12.55		134.30	0.00				
	04/23/01	13.14		133.71	0.00				
	07/23/01	13.73		133.12	0.00				
	10/23/01	14.85		132.00	0.00				
	01/21/02	11.70	149.50	137.80	0.00				Top of casing elevations were surveyed for EDF compliance.
	04/25/02	11.65		137.85	0.00				
	07/22/02	12.52		136.98	0.00				
	10/22/02	12.90		136.60	0.00				
	01/27/03	11.43		138.07	0.00				
	04/21/03	11.44		138.06	0.00				
	07/21/03	12.08		137.42	0.00				
	01/20/04	10.54		138.96	0.00				
	07/19/04	11.92		137.58	0.00				
	01/17/05	10.21		139.29	0.00				
	07/12/05	9.96		139.54	0.00				
V-2	06/13/91	---	101.13	---	---	8 - 23	7 - 23	0 - 7	
	07/09/91	---		---	---				
	08/01/91	---		---	---				
	08/29/91	---		---	---				

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
V-2	09/11/91	---	101.13	---	---	8 - 23	7 - 23	0 - 7	
	10/08/91	---		---	---				
	11/08/91	---		---	---				
	12/11/91	---		---	---				
	01/13/92	18.39		82.74	0.00				
	02/11/92	21.16		79.97	0.00				
	03/11/92	16.86		84.27	0.00				
	04/13/92	17.03		84.10	0.00				
	05/15/92	17.78		83.35	0.00				
	06/15/92	21.44		79.69	0.00				
	07/16/92	---		---	---				
	08/18/92	---		---	---				
	09/18/92	---		---	---				
	12/08/92	19.41		81.72	0.00				
	03/10/93	13.62		87.51	0.00				
	06/04/93	12.98		88.15	0.00				
	10/14/93	---		---	---				
	04/11/94	20.11		81.02	0.00				
	10/19/94	---		---	---				
	04/11/95	12.14		88.99	0.00				
	03/06/96	13.01		88.12	0.00				
	10/14/96	16.04	100.82	84.78	0.00				
	04/09/97	13.46		87.36	0.00				
	10/29/97	17.24		83.58	0.00				
	04/07/98	8.01		94.50	0.00				
	10/07/98	13.68		87.14	0.00				
	04/07/99	10.56		90.26	0.00				
	10/19/99	13.96		86.86	0.00				
	04/26/00	9.31		91.51	0.00				
	10/30/00	11.75	143.85	132.10	0.00				Top of casing elevations were surveyed.
	02/26/01	10.36		133.49	0.00				
	04/23/01	15.10		128.75	0.00				
	08/22/01	15.48		128.37	0.00				Well has been switched to a SVE (soil vapor extraction) well.

Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

Well ID	Sample Date	TOC (Ft, msl)	DTW (Ft)	GWE (Ft, msl)	Product (ft)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
DW-1	06/13/91	37.82	102.64	64.82	0.00	140 - 180	61 - 180	0 - 61	Well has been abandoned.
	07/09/91	37.82		64.82	0.00				
	08/01/91	92.26		10.38	0.00				
	08/29/91	50.13		52.51	0.00				
	09/11/91	39.72		62.92	0.00				
	10/08/91	39.31		63.33	0.00				
	11/09/91	38.90		63.74	0.00				
	12/11/91	39.96		62.68	0.00				
	12/08/92	37.75		64.89	0.00				
	03/10/93	32.60		70.04	0.00				
	06/04/93	32.35		70.29	0.00				
	10/14/93	---		---	---				
DW-2	03/09/74	---	---	---	---	94 - 134	unknown	0 - 20	Well has been abandoned.
	10/17/95	---		---	---				
	10/21/96	---		---	---				
	04/10/97	---		---	---				
	10/30/97	---		---	---				
	04/08/98	---		---	---				
	10/07/98	---		---	---				
	04/07/99	---		---	---				
	08/30/99	23.23		---	0.48				

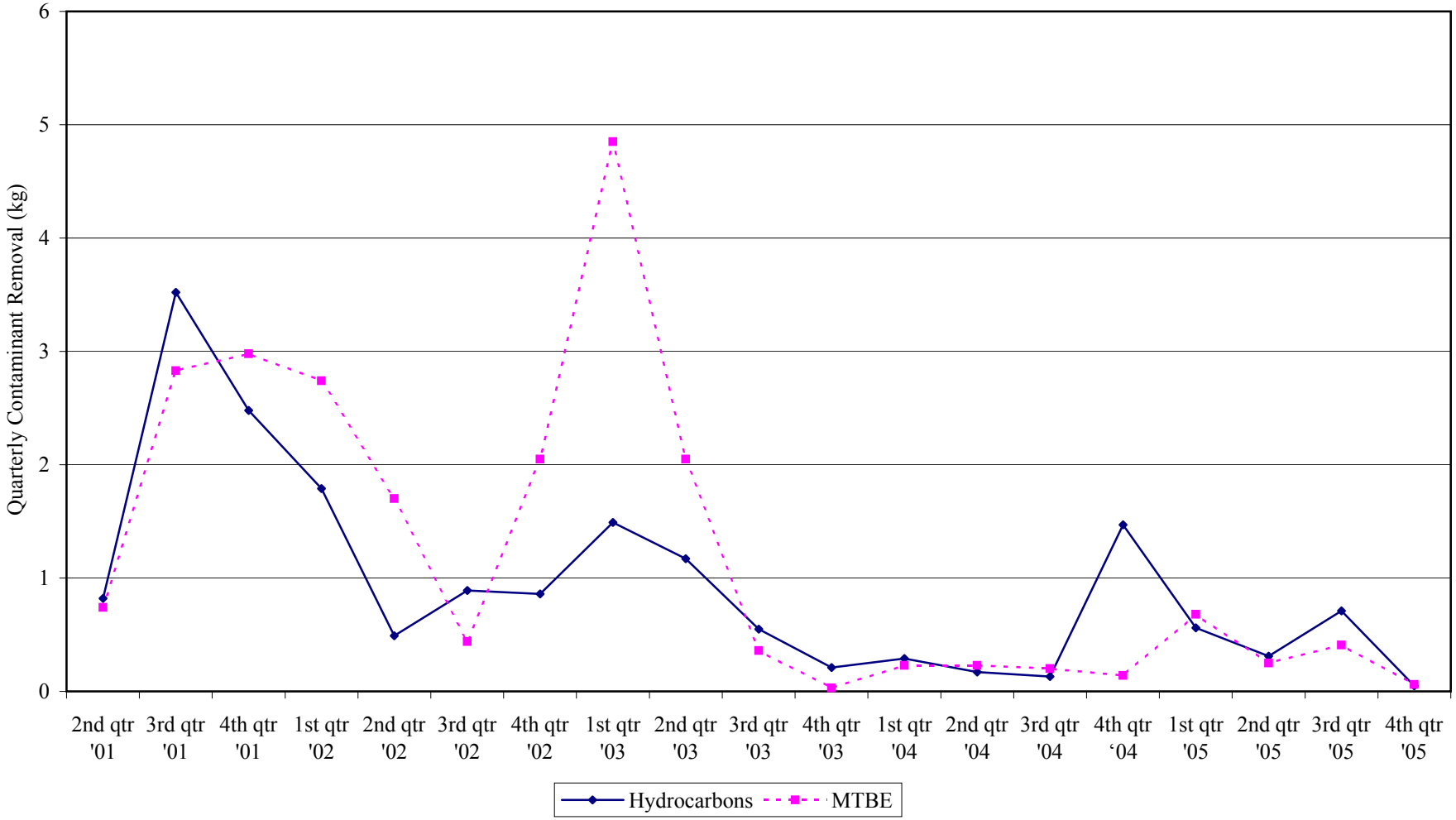
Table 7. Water Level Data/Well Construction Details - Redwood Oil Bulk Plant, 455 Yolanda Ave. Santa Rosa, CA

EXPLANATION:

DTW = Depth to water
ft =feet
msl = mean sea level
TOC = Top of casing elevation
GWE = Ground water elevation
— **= Not applicable**

Table 8. Hydrocarbon and MTBE Removal - Redwood Oil Company Bulk Plant, 455 Yolanda Ave., Santa Rosa, CA

Quarter	Gallons Pumped	Influent Hydrocarbon Concentratinon (TPH[D] + TPH[G]) (ug/L)	Hydrocarbon Removal (kg)	Influent MTBE	MTBE Removal (kg)	notes
2nd qtr '01	46,786	4,605	0.82	4,200	0.74	
3rd qtr '01	158,860	5,850	3.52	4,700	2.83	
4th qtr '01	192,067	3,100	2.48	4,100	2.98	
1st qtr '02	369,942	1,277	1.79	1,955	2.74	
2nd qtr '02	390,485	1,242	0.49	1,145	1.7	
3rd qtr '02	208,672	1,130	0.89	555	0.44	
4th qtr '02	255,724	887	0.86	2,240	2.05	
1st qtr '03	413,190	950	1.49	3,100	4.85	
2nd qtr '03	471,556	655	1.17	1,150	2.05	
3rd qtr '03	295,358	495	0.55	320	0.36	
4th qtr '03	68,947	790	0.21	110	0.03	
1st qtr '04	157,526	490	0.29	390	0.23	
2nd qtr '04	80,599	540	0.17	760	0.23	
3rd qtr '04	86,505	410	0.13	600	0.2	
4th qtr ‘04	194,170	2,000	1.47	190	0.14	
1st qtr '05	341,069	430	0.56	530	0.68	Lab indicated no TPH(D) or TPH(G) present. Concentration is from light Oil in the C12-C36 range.
2nd qtr '05	179,817	450	0.31	370	0.25	
3rd qtr '05	301,592	620	0.71	360	0.41	
4th qtr '05	**187,467**	**75**	**0.05**	**84**	**0.06**	



Graph 1: Contaminant removal by quarter, Ground Water Extraction (GWE) system, Redwood Oil Bulk Plant, 455 Yolanda Ave., Santa Rosa, CA

APPENDIX C

CHAIN OF CUSTODY
AND
LABORATORY ANALYTICAL REPORTS

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Jim Green
ECM Group
290 W. Channel Rd.
Benicia, CA 94510

Lab Certificate Number: 45675
Issued: 10/17/2005

Project Number: 98-507-91
Project Name: Yolanda

Project Location: 455 Yolanda Avenue, Santa Rosa
P.O. Number: 98-507-91
Global ID: T0609700708

Certificate of Analysis - Final Report

On October 06, 2005, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test	Comments
Liquid	EDF	
	TPH-Extractable-SGCU	
	EPA 8260B EPA 624	
	TPH as Gasoline - GC-MS	

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Laurie Glantz-Murphy
Laboratory Director

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

ECM Group
290 W. Channel Rd.
Benicia, CA 94510
Attn: Jim Green

Date Received: 10/6/2005 12:07:05 PM

Project Number: 98-507-91
Project Name: Yolanda
GlobalID: T0609700708
P.O. Number: 98-507-91
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 45675-001 **Sample ID: Influent** **Matrix:** Liquid **Sample Date:** 10/3/2005 11:15 AM

EPA 3510C EPA 8015 MOD.(Extractable with Silica Gel Cleanup) **TPH-Extractable-SGCU**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	75		1.0	50	µg/L	10/7/2005	DW051007BS	10/12/2005	DW051007BS

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	52.5	16 - 137

Analyzed by: EricKum
Reviewed by: ECunniffe

EPA 5030C EPA 8260B EPA 624 **8260Petroleum**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		5.0	2.5	µg/L	N/A	N/A	10/14/2005	WM1051014
Toluene	ND		5.0	2.5	µg/L	N/A	N/A	10/14/2005	WM1051014
Ethyl Benzene	ND		5.0	2.5	µg/L	N/A	N/A	10/14/2005	WM1051014
Xylenes, Total	ND		5.0	2.5	µg/L	N/A	N/A	10/14/2005	WM1051014
Methyl-t-butyl Ether	84		5.0	5.0	µg/L	N/A	N/A	10/14/2005	WM1051014
tert-Butyl Ethyl Ether	ND		5.0	25	µg/L	N/A	N/A	10/14/2005	WM1051014
tert-Butanol (TBA)	ND		5.0	50	µg/L	N/A	N/A	10/14/2005	WM1051014
Diisopropyl Ether	ND		5.0	25	µg/L	N/A	N/A	10/14/2005	WM1051014
tert-Amyl Methyl Ether	ND		5.0	25	µg/L	N/A	N/A	10/14/2005	WM1051014

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	93.0	70 - 130
Dibromofluoromethane	124	70 - 130
Toluene-d8	112	70 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

EPA 5030C GC-MS **TPH as Gasoline - GC-MS**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		5.0	250	µg/L	N/A	N/A	10/14/2005	WM1051014

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	105	70 - 130
Dibromofluoromethane	113	70 - 130
Toluene-d8	106	70 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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ECM Group
290 W. Channel Rd.
Benicia, CA 94510
Attn: Jim Green

Date Received: 10/6/2005 12:07:05 PM

Project Number: 98-507-91
Project Name: Yolanda
GlobalID: T0609700708
P.O. Number: 98-507-91
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 45675-002 **Sample ID: MID** **Matrix:** Liquid **Sample Date:** 10/3/2005 10:25 AM

EPA 3510C EPA 8015 MOD.(Extractable with Silica Gel Cleanup) **TPH-Extractable-SGCU**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	10/7/2005	DW051007BS	10/12/2005	DW051007BS

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	66.6	16 - 137

Analyzed by: EricKum
Reviewed by: ECunniffe

EPA 5030C EPA 8260B EPA 624 **8260Petroleum**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	10/13/2005	WM1051013
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	10/13/2005	WM1051013
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	10/13/2005	WM1051013
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	10/13/2005	WM1051013
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	10/13/2005	WM1051013
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	10/13/2005	WM1051013

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	94.4	70 - 130
Dibromofluoromethane	120	70 - 130
Toluene-d8	108	70 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

EPA 5030C GC-MS **TPH as Gasoline - GC-MS**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/L	N/A	N/A	10/13/2005	WM1051013

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	106	70 - 130
Dibromofluoromethane	110	70 - 130
Toluene-d8	101	70 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

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Method Blank - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051013

Validated by: MaiChiTu - 10/14/05

QC Batch Analysis Date: 10/13/2005

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**91.7**	70 - 130
Dibromofluoromethane	**113**	70 - 130
Toluene-d8	**110**	70 - 130

Method Blank - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM1051013

Validated by: MaiChiTu - 10/14/05

QC Batch Analysis Date: 10/13/2005

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**106**	70 - 130
Dibromofluoromethane	**103**	70 - 130
Toluene-d8	**103**	70 - 130

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Laboratory Control Sample / Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051013

Reviewed by: MaiChiTu - 10/14/05

QC Batch ID Analysis Date: 10/13/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Benzene	<0.50	20	20.3	µg/L	102	70 - 130
Methyl-t-butyl Ether	<1.0	20	17.7	µg/L	88.5	70 - 130
Toluene	<0.50	20	21.2	µg/L	106	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**86.6**	70 - 130
Dibromofluoromethane	**104**	70 - 130
Toluene-d8	**98.7**	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.50	20	20.2	µg/L	101	**0.49**	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	17.7	µg/L	88.5	**0.0**	25.0	70 - 130
Toluene	<0.50	20	20.7	µg/L	104	**2.4**	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**86.2**	70 - 130
Dibromofluoromethane	**100**	70 - 130
Toluene-d8	**97**	70 - 130

Laboratory Control Sample / Duplicate - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM1051013

Reviewed by: MaiChiTu - 10/14/05

QC Batch ID Analysis Date: 10/13/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	120	131	µg/L	105	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**99.3**	70 - 130
Dibromofluoromethane	**93.6**	70 - 130
Toluene-d8	**97.8**	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	120	125	µg/L	100	**4.3**	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**99.1**	70 - 130
Dibromofluoromethane	**93.1**	70 - 130
Toluene-d8	**97.2**	70 - 130

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Matrix Spike / Matrix Spike Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051013

Reviewed by: MaiChiTu - 10/14/05

QC Batch ID Analysis Date: 10/13/2005

MS Sample Spiked: 45677-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	ND	20	20.5	µg/L	10/13/2005	102	70 - 130
Toluene	ND	20	22.0	µg/L	10/13/2005	110	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**86.6**	70 - 130
Dibromofluoromethane	**100**	70 - 130
Toluene-d8	**98.9**	70 - 130

MSD Sample Spiked: 45677-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	20.3	µg/L	10/13/2005	102	0.98	25.0	70 - 130
Toluene	ND	20	21.4	µg/L	10/13/2005	107	2.8	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**86.3**	70 - 130
Dibromofluoromethane	**100**	70 - 130
Toluene-d8	**96.8**	70 - 130

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Method Blank - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051014

Validated by: MaiChiTu - 10/17/05

QC Batch Analysis Date: 10/14/2005

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
Toluene	1.0	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**94.0**	70 - 130
Dibromofluoromethane	**112**	70 - 130
Toluene-d8	**109**	70 - 130

Method Blank - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM1051014

Validated by: MaiChiTu - 10/17/05

QC Batch Analysis Date: 10/14/2005

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**106**	70 - 130
Dibromofluoromethane	**103**	70 - 130
Toluene-d8	**103**	70 - 130

Entech Analytical Labs, Inc.

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Laboratory Control Sample / Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051014

Reviewed by: MaiChiTu - 10/17/05

QC Batch ID Analysis Date: 10/14/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Benzene	<0.50	20	20.9	µg/L	104	70 - 130
Methyl-t-butyl Ether	<1.0	20	18.2	µg/L	91.0	70 - 130
Toluene	1.0	20	22.0	µg/L	110	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**89.8**	70 - 130
Dibromofluoromethane	**104**	70 - 130
Toluene-d8	**97.7**	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.50	20	20.5	µg/L	102	**1.9**	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	18.1	µg/L	90.5	**0.55**	25.0	70 - 130
Toluene	1.0	20	21.9	µg/L	110	**0.46**	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**89.2**	70 - 130
Dibromofluoromethane	**102**	70 - 130
Toluene-d8	**97.1**	70 - 130

Laboratory Control Sample / Duplicate - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM1051014

Reviewed by: MaiChiTu - 10/17/05

QC Batch ID Analysis Date: 10/14/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	120	120	µg/L	95.8	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**99.8**	70 - 130
Dibromofluoromethane	**94.1**	70 - 130
Toluene-d8	**97.7**	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	120	116	µg/L	92.9	**3.1**	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**102**	70 - 130
Dibromofluoromethane	**93**	70 - 130
Toluene-d8	**97**	70 - 130

Entech Analytical Labs, Inc.

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Matrix Spike / Matrix Spike Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051014

Reviewed by: MaiChiTu - 10/17/05

QC Batch ID Analysis Date: 10/14/2005

MS Sample Spiked: 45694-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	ND	20	20.4	µg/L	10/14/2005	102	70 - 130
Methyl-t-butyl Ether	60.5	20	68.2	µg/L	10/14/2005	38.5	70 - 130
Toluene	ND	20	21.2	µg/L	10/14/2005	106	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**87.3**	70 - 130
Dibromofluoromethane	**104**	70 - 130
Toluene-d8	**98.7**	70 - 130

MSD Sample Spiked: 45694-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	20.1	µg/L	10/14/2005	100	1.5	25.0	70 - 130
Methyl-t-butyl Ether	60.5	20	68.5	µg/L	10/14/2005	40.0	3.8	25.0	70 - 130
Toluene	ND	20	21.1	µg/L	10/14/2005	106	0.47	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**88**	70 - 130
Dibromofluoromethane	**105**	70 - 130
Toluene-d8	**98.8**	70 - 130

Entech Analytical Labs, Inc.

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Laboratory Control Sample / Duplicate - Liquid - EPA 8015 MOD.(Extractable with Silica Gel Cleanup) - TPH-Extractable-SGCU

QC/Prep Batch ID: DW051007BS

Reviewed by: dba - 10/10/05

QC/Prep Date: 10/7/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	836	µg/L	83.6	35 - 109
TPH as Motor Oil	<200	1000	705	µg/L	70.5	30 - 132

Surrogate	% Recovery	Control Limits
o-Terphenyl	**69.1**	16 - 137

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	874	µg/L	87.4	**4.5**	25.0	35 - 109
TPH as Motor Oil	<200	1000	655	µg/L	65.5	**7.4**	25.0	30 - 132

Surrogate	% Recovery	Control Limits
o-Terphenyl	**68.9**	16 - 137

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara. CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: JIM GREEN	Phone No.: 707-751-0655	Purchase Order No (Reqd).:	Send Invoice to (if Different) / Phone
Company Name: ECM GROUP	Fax No.: 707-751-0653	Project Number: 98-507-91	Company: REDWOOD OIL CO.
Mailing Address: P.O. BOX 802	email:	Project Name: YOLANDA	Billing Address (if Different)
City: BENICIA	State: CA Zip: 94510	Project Location:	City: / State / Zip

Sampler: MIKE JACKSON
Field Org. Code:
Global ID:

Turn Around Time
- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☐ 4 Day
- ☐ 5 Day
- ☒ Standard (10 Day)

Order ID:

Sampling

Client ID:	Field PT	Lab. No.	Date	Time	Matrix	Composite	Grab	Containers	Preservative	Volatile Organics by GCMS: 601/602 ☐ 8260B ☐ 624 ☐	Fuel Oxygenates by 8260 ☐ 8010 by 8260 ☐ MTBE by 8260B ☐	Pesticides-8081 ☐ PCBs - 8082 ☐	TPH as Gas/BTEX ☒ TPH as Gas/BTEX/MTBE ☐	Base/Neutral/Acid Organics 8270 ☐ 8270-SIM ☐ PNA ☐	Fuel Scan Extractable ☐ Purgeable ☐	Diesel ☒ Motor Oil ☐ w/ Si-gel Standard Cleanup ☒ w/ Si-gel Column Cleanup ☐	pH	CN	TRPH ☐ Oil & Grease ☐	Metals - Circle Below Total ☐ Dissolved ☐	STLC	TTLC	Remarks
INFLUENT			10/3/05	11:15	W		X	5	HCl	X			X			X							A5675-001
MID			10/3/05	10:25	W		X	5	HCl	X			X			X							002

Relinquished by:	Received by:	Date: 10/6/05	Time: 0940
Relinquished by:	Received by:	Date: 10/6/05	Time: 1126
Relinquished by:	Received by:	Date:	Time:
Relinquished by:	Received by:	Date:	Time:

Special Instructions or Comments

- ☐ NPDES Detection Limits
- ☐ EDD Report Required
- ☐ EDF Report Required
- ☐ PDF File Required

Metals:
Al, As, Sb, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Si, Ag, Na, Se, Sr, Tl, Sn, Ti, V, Zn, W : RCRA-8 ☐ CAM-17 ☐ Plating ☐ PPM-13 ☐ LUFT-5 ☐

APPENDIX D

FIELD NOTES

REDWOOD Oil CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 3 OCT 05 Time 1130 Technician MAHONEY

GWE/SVE#1:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#2:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#3:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#4:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#5:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#6	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#7:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#8:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#9:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#10:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#1:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#2:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#3:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#4:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#5:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#6:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____

GWE Compressor:
Hour Meter ____ Pressure Setting ____ PSI Air Filter Condition ____
Operational ____ Belts Changed: ____ Oil Filter Changed: ____ Receiver Tank Drained ____

Totalizer Reading 953125.2
Previous Totalizer Reading ____ Date&Time ____
GPM(This reading minus previous reading): ____

Comments: SYSTEM ↓ on ARRIVAL (SOS ↓ 9/30)
- TRANSFER PUMP energized but very slowly
Processing H2O ... PSI in 18
- Cleaned FILTER 3.4 PSI in: 8
- DRAINED Loading TANK
- System ↓ on DEPARTURE.

REDWOOD Oil CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 7 Oct '05 Time 1000 Technician MAHONEY

GWE/SVE#1:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#2:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#3:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#4:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#5:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#6	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#7:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#8:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#9:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#10:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#1:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#2:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#3:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#4:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#5:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#6:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___

GWE Compressor:
Hour Meter — Pressure Setting — PSI Air Filter Condition —
Operational — Belts Changed: — Oil Filter Changed: — Receiver Tank Drained —

Totalizer Reading 953304.1
Previous Totalizer Reading — Date&Time —
GPM(This reading minus previous reading): ___

Comments: System ↓ on ARRIVAL
Cleaning Strainer Cans
System ↓ to reconfigure new Compressor
Package. will Remain ↓ until
Cut
further notice.

System ↓ on DEPARTURE.

REDWOOD Oil CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 14 Oct 05 Time 1600 Technician MAHONEY

GWE/SVE#1:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#2:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#3:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#4:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#5:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#6	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#7:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#8:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#9:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#10:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#1:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#2:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#3:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#4:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#5:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#6:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____

GWE Compressor:
Hour Meter ____ Pressure Setting ____ PSI Air Filter Condition ____
Operational ____ Belts Changed: ____ Oil Filter Changed: ____ Receiver Tank Drained ____

Totalizer Reading 953994.3
Previous Totalizer Reading ____ Date&Time ____
GPM(This reading minus previous reading): ____

Comments: SYSTEM ↓ ON ARRIVAL
SYSTEM ↓ FOR COMPRESSOR WORK VEN.
(SWAP OUT OIL FOR NEW)
ALL CONDITIONS NORMAL OTHERWISE.

REDWOOD OIL CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date ~~Aug~~ Oct. 21 '05 Time 1600 Technician MAHONEY

GWE/SVE#1: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#2: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#3: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#4: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#5: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#6 Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#7: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#8: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#9: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
GWE/SVE#10: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
PMCS#1: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
PMCS#2: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
PMCS#3: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
PMCS#4: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
PMCS#5: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____
PMCS#6: Reg. Pressure_____PSI Depth to Water:_____Ft Operational_____

GWE Compressor:
Hour Meter_____ Pressure Setting_____PSI Air Filter Condition_____
Operational_____ Belts Changed:_____ Oil Filter Changed:_____ Receiver Tank Drained_____

Totalizer Reading 4556013
Previous Totalizer Reading_____ Date&Time_____
GPM(This reading minus previous reading):_____

Comments: SYSTEM ↑ ON ARRIVAL
COMPRESSOR: OBSERVED TO CYCLE: ≈ 4.5 OFF (MIN)
CHECKED 1 [illegible] HOSE LEAKING 2 ON (MIN)
PSI TO WELLS: 44 PSI
COMPRESSOR OFF AT 180 PSI.
REMOVED AIR FILTER... W/RUN WITHOUT UNTIL IT CAN BE REPLACED
[illegible]

REDWOOD Oil CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 28 Oct '05 Time 1550 Technician Mahoney

GWE/SVE#1: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#2: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#3: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#4: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#5: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#6 Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#7: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#8: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#9: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
GWE/SVE#10: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
PMCS#1: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
PMCS#2: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
PMCS#3: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
PMCS#4: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
PMCS#5: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____
PMCS#6: Reg. Pressure ____ PSI Depth to Water: ____ Ft Operational ____

GWE Compressor:
Hour Meter N/A Pressure Setting ____ PSI Air Filter Condition ____
Operational ✓ Belts Changed: ____ Oil Filter Changed: ____ Receiver Tank Drained ____

Totalizer Reading 972783.9
Previous Totalizer Reading ____ Date&Time ____
GPM(This reading minus previous reading): ____

Comments: SYSTEM ↑ ON ARRIVAL
- P&A FLOODED DUE TO A SUMP PUMP FAILURE
INTAKE HOSE CLOGGED W/ SEDIMENT. CLEANED OUT
HOSE AND PUMP BACK ON LINE.
- COMPRESSOR CYCLE: ± 2 MIN ON
± 6 MIN OFF
SYSTEM ↑ ON DEPARTURE

REDWOOD Oil CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 4/20/05 Time 1500 Technician MAHONEY

GWE/SVE#1:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#2:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#3:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#4:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#5:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#6	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#7:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#8:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#9:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#10:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#1:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#2:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#3:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#4:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#5:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#6:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____

GWE Compressor:
Hour Meter ____ Pressure Setting ____ PSI Air Filter Condition ____
Operational ____ Belts Changed: ____ Oil Filter Changed: ____ Receiver Tank Drained ____

Totalizer Reading 9870651
Previous Totalizer Reading ____ Date&Time ____
GPM(This reading minus previous reading): ____

Comments: SYSTEM ON ARRIVAL
Compressor Cycling: 6 MIN 8 SEC OFF
1 MIN 45 SEC ON AT TANK
OFF AT 180 PSI TANK 90 PSI AT REGULATOR
ON AT 145 PSI TANK & 80 PSI REGULATOR
SYSTEM ON DEPARTURE.

REDWOOD OIL CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 14 Nov '05 Time 0815 Technician Mahoney

	Reg. Pressure (PSI)	Depth to Water (Ft)	Operational
GWE/SVE#1:			
GWE/SVE#2:			
GWE/SVE#3:			
GWE/SVE#4:			
GWE/SVE#5:			
GWE/SVE#6			
GWE/SVE#7:			
GWE/SVE#8:			
GWE/SVE#9:			
GWE/SVE#10:			
PMCS#1:			
PMCS#2:			
PMCS#3:			
PMCS#4:			
PMCS#5:			
PMCS#6:			

GWE Compressor:
Hour Meter — Pressure Setting — PSI Air Filter Condition —
Operational — Belts Changed: — Oil Filter Changed: — Receiver Tank Drained —

Totalizer Reading 1012997.2
Previous Totalizer Reading — Date&Time —
GPM(This reading minus previous reading): ______

Comments: SYSTEM ↑ ON ARRIVAL

X-FER PUMP ON: PSI IN - 8"
PSI OUT - 6"

COMPRESSOR CYCLE: 1 MIN 50 SEC ON) ON AT 150 PSI / 80 AT REG
5 MIN 10 SEC OFF OFF AT 180 PSI / 74 AT REG

SYSTEM ↑ ON DEPARTURE.

REDWOOD Oil CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 2 DEC 05 Time 1530 Technician MAHONEY

GWE/SVE#1:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#2:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#3:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#4:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#5:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#6	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#7:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#8:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#9:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#10:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#1:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#2:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#3:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#4:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#5:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#6:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___

GWE Compressor:
Hour Meter ___ Pressure Setting ___ PSI Air Filter Condition ___
Operational ___ Belts Changed: ___ Oil Filter Changed: ___ Receiver Tank Drained ___

Totalizer Reading 1053358.4 3151 SAT
Previous Totalizer Reading ___ Date&Time ___
GPM(This reading minus previous reading): ___

Comments: SYSTEM ↑ ON ARRIVAL (COMPRESSOR OFF AT BREAKER)
CLEAN STRAINING CAN?
COMPRESSOR ON: 9 HRS 45 SEC (150 psi / 83 AT 2:29)
OFF: 3 HRS 50 SEC (180 psi / 74 AT 2:20)

SYSTEM ↑ ON DEPARTURE

* COMPRESSOR OIL & AIR FILTER CHANGED 11/05 *

REDWOOD Oil CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 9 DEC 05 Time 1330 Technician MARKLEY

GWE/SVE#1:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#2:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#3:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#4:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#5:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#6	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#7:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#8:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#9:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
GWE/SVE#10:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#1:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#2:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#3:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#4:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#5:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____
PMCS#6:	Reg. Pressure ____	PSI	Depth to Water: ____	Ft	Operational ____

GWE Compressor:
Hour Meter ____ Pressure Setting ____ PSI Air Filter Condition ____
Operational ____ Belts Changed: ____ Oil Filter Changed: ____ Receiver Tank Drained ____

Totalizer Reading 1082403.1
Previous Totalizer Reading ____ Date&Time ____
GPM(This reading minus previous reading): ____

Comments: SYSTEM ↑ ON ARRIVAL

COMPRESSOR ON: 1 MIN 45 SEC (140 PSI / 82 AT 2ES)
OFF: 4 MIN 15 SEC (185 PSI / 72 AT 2ES)

ALL CONDITIONS NORMAL

SYSTEM ↑ ON DEPARTURE

REDWOOD Oil CO.
455 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 16 DEC Time 1220 Technician MAHONEY

GWE/SVE#1:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#2:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#3:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#4:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#5:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#6	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#7:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#8:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#9:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
GWE/SVE#10:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
PMCS#1:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
PMCS#2:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
PMCS#3:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
PMCS#4:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
PMCS#5:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational
PMCS#6:	Reg. Pressure	PSI	Depth to Water:	Ft	Operational

GWE Compressor:
Hour Meter ~ Pressure Setting — PSI Air Filter Condition —
Operational — Belts Changed: — Oil Filter Changed: — Receiver Tank Drained —

Totalizer Reading 1108494.9
Previous Totalizer Reading — Date&Time —
GPM(This reading minus previous reading): —

Comments: SYSTEM 1 ON ARRIVAL /// HC CONDITIONS NORMAL.
COMPRESSOR ON: 1 MINUT 40 SEC (180 AT COMP — 72 AT REC)
COMPRESSOR OFF: 4 MINUT 25 SEC (140 AT COMP — 84 AT REC)

SYSTEM 1 ON DEPARTURE.

REDWOOD Oil CO.
465 YOLANDA AVE., SANTA ROSA
Ground Water Treatment System
Operations and Maintenance Log

ECM PROJECT #98-507-91

Date 23 DEC 05 Time 1115 Technician MAHONEY

GWE/SVE#1:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#2:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#3:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#4:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#5:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#6	Reg: Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#7:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#8:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#9:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
GWE/SVE#10:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#1:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#2:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#3:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#4:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#5:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___
PMCS#6:	Reg. Pressure ___	PSI	Depth to Water: ___	Ft	Operational ___

GWE Compressor:
Hour Meter ___ Pressure Setting ___ PSI Air Filter Condition ___
Operational ___ Belts Changed: ___ Oil Filter Changed: ___ Receiver Tank Drained ___

Totalizer Reading 1140591.5
Previous Totalizer Reading ___ Date&Time ___
GPM(This reading minus previous reading): ___

Comments: SYSTEM 1 ON ARRIVAL

COMPRESSOR ON: 1145 (145 AT TANK / 82 PSI)
OFF: 3:20 (130 AT TANK / 74 PSI)

CHANGED OUT BAG FILTER

SYSTEM 1 ON DEPARTURE

MM